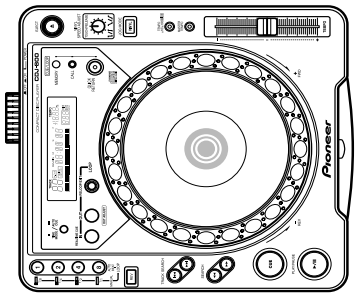
Pioneer *sound.vision.soul*

Service Manual



CDJ-800

ORDER NO.
RRV2690

COMPACT DISC PLAYER

CDJ-800

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Model	Type	Power Requirement	Remarks
CDJ-800	KUCXJ	AC120V	
CDJ-800	WYXJ	AC220-240V	

For details, refer to "Important symbols for good services" .

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ⓒ**PIONEER CORPORATION 2002**
T-ZZR OCT. 2002 2002 printed in Japan

SAFETY INFORMATION

This service manual is intended for qualified service technicians ; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING
This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 – Proposition 65

NOTICE
(FOR CANADIAN MODEL ONLY)
Fuse symbols (fast operating fuse) and/or (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE
(POUR MODÈLE CANADIEN SEULEMENT)
Les symboles de fusible (fusible de type rapide) et/ou (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

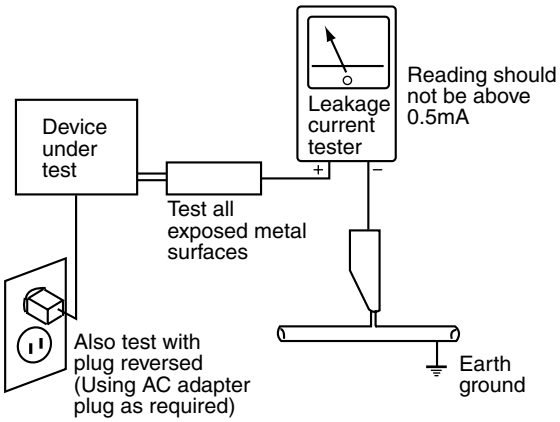
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5mA.


Reading should not be above 0.5mA
Leakage current tester
Device under test
+
–
Test all exposed metal surfaces
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

IMPORTANT

THIS PIONEER APPARATUS CONTAINS LASER OF CLASS 1.
SERVICING OPERATION OF THE APPARATUS SHOULD BE DONE BY A SPECIALLY INSTRUCTED PERSON.

LASER DIODE CHARACTERISTICS

MAXIMUM OUTPUT POWER: 5 mW
WAVELENGTH: 780 – 785 nm

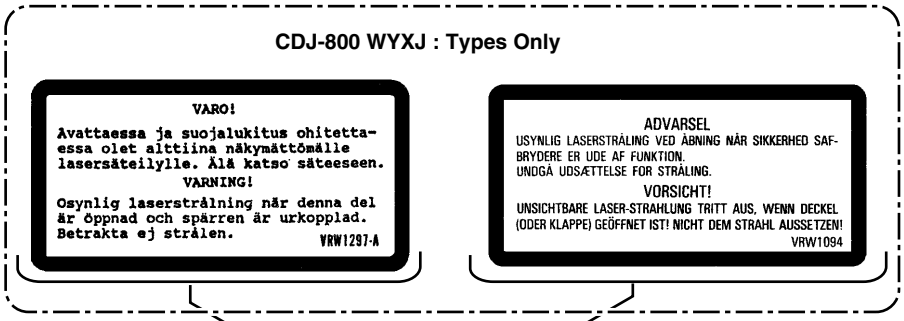
WARNING !

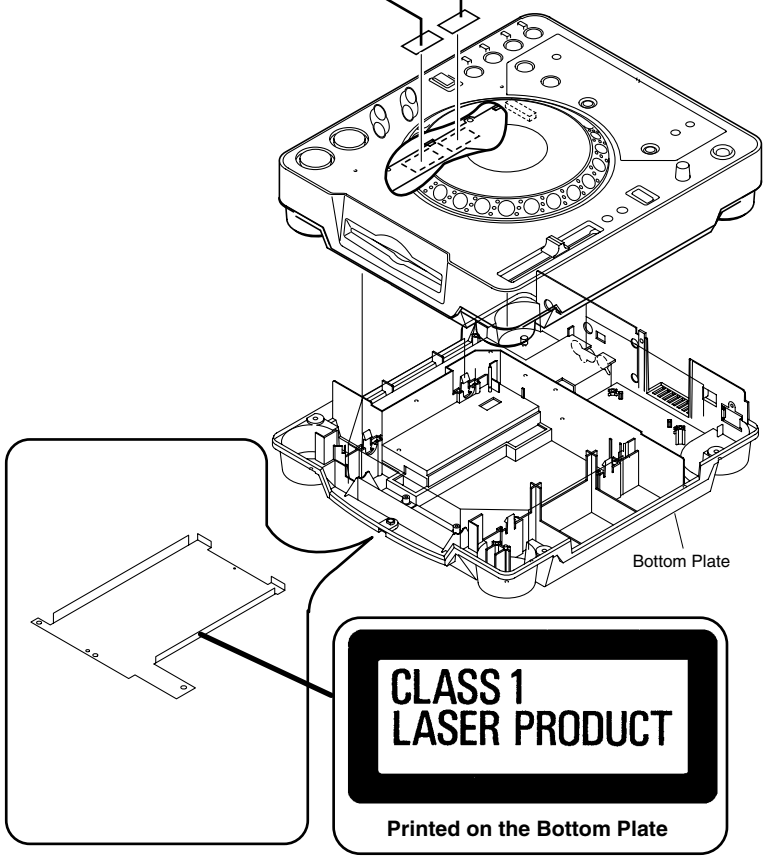
The AEL(accessible emission level) of the laser power output is less then **CLASS 1** but the laser component is capable of emitting radiation exceeding the limit for **CLASS 1.**

A specially instructed person should servicing operation of the apparatus.

LABEL CHECK

CDJ-800 WYXJ : Types Only


VARO!
Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen.
VARNING!
Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen.
VRW1297-A
ADVARSEL
USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHED SAFBRYDERE ER UDE AF FUNKTION.
UNDGÅ UDSÆTTELSE FOR STRÅLING.
VORSICHT!
UNSICHTBARE LASER-STRAHLUNG TRITT AUS, WENN DECKEL (ODER KLAPPE) GEÖFFNET IST! NICHT DEM STRAHL AUSSETZEN!
VRW1094



Printed on the Bottom Plate

Additional Laser Caution

1. Laser Interlock Mechanism
The position of the switch (S1901) for detecting loading completion is detected by the system microprocessor, and the design prevents laser diode oscillation when the switch is not in $\overline{\text{LPS1}}$ terminal side (when the mechanism is not clamped and $\overline{\text{LPS1}}$ signal is high level.) Thus, the interlock will no longer function if the switch is deliberately set to $\overline{\text{LPS1}}$ terminal side. (if $\overline{\text{LPS1}}$ signal is low level).
In the test mode* the interlock mechanism will not function. Laser diode oscillation will continue, if pin 9 of TA2153FN (IC118)on the MAIN ASSY is connected to GND, or pin 10 of IC118 ($\overline{\text{LDON}}$) is connected to low level (ON), or else the terminals of Q110 are shorted to each other (fault condition).

2. When the cover is opened, close viewing of the objective lens with the naked eye will cause exposure to a Class 1 laser beam.

* : Refer to page 53.

[Important symbols for good services]
In this manual, the symbols shown-below indicate that adjustments, settings or cleaning should be made securely.
When you find the procedures bearing any of the symbols, be sure to fulfill them:

1. Product safety

You should conform to the regulations governing the product (safety, radio and noise, and other regulations), and should keep the safety during servicing by following the safety instructions described in this manual.

2. Adjustments

To keep the original performances of the product, optimum adjustments or specification confirmation is indispensable. In accordance with the procedures or instructions described in this manual, adjustments should be performed.

3. Cleaning

For optical pickups, tape-deck heads, lenses and mirrors used in projection monitors, and other parts requiring cleaning, proper cleaning should be performed to restore their performances.

4. Shipping mode and shipping screws

To protect the product from damages or failures that may be caused during transit, the shipping mode should be set or the shipping screws should be installed before shipping out in accordance with this manual, if necessary.

5. Lubricants, glues, and replacement parts

Appropriately applying grease or glue can maintain the product performances. But improper lubrication or applying glue may lead to failures or troubles in the product. By following the instructions in this manual, be sure to apply the prescribed grease or glue to proper portions by the appropriate amount.For replacement parts or tools, the prescribed ones should be used.

[NOTES ON SERVICING]

■ CLEARNING

Before shipping out the product, be sure to clean the following positions by using the prescribed cleaning tools:

Position to be cleaned	Cleaning tools
Pickup leneses	Cleaning liquid : GEM1004 Cleaning paper : GED-008

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1. SPECIFICATIONS

1. General

System ..... Compact disc digital audio system
Power requirements ..... (KUCXJ)AC 120 V, 60 Hz
Power requirements .....(WYXJ)AC 220 -240V, 50/60 Hz
Power consumption ..... (KUCXJ)18 W
Power consumption .....(WYXJ)21 W
Operating temperature..... +5°C to +35°C
Operating humidity ..... 5% to 85%
(There should be no condensation of moisture.)
Weight .....3.9 kg (8.6 lb)
Dimensions ..... 305 (W)x 344.1 (D) x 108.5 (H) mm
12 - 5/8 (W) x 13 -17/32 (D)x 4 - 1/4 (H) in

2. Audio section

Frequency response .....4 Hz to 20 kHz
Signal-to-noise ratio .....115 dB or more (JEITA)
Distortion .....0.006% (JEITA)

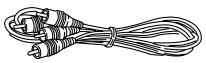
3. Accessories

- Operating instructions 1
- Power cord..... 1
- Audio cable 1
- Control cord..... 1
- Forced eject pin 1
  (housed in a groove in the bottom panel)
- Warranty(KUCXJ) 1

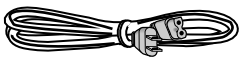
NOTE:
Specifications and design are subject to possible modification without notice.

Accessories

Audio Cable
(VDE1052) L=1.5m

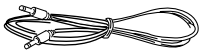


Power Cord
(ADG1154 : WYXJ)
(ADG7021 : KUCXJ)



Forced Fject Pin
(housed in a groove in
the bottom panel)
(DEX1008)

Control Cord
(PDE-319) L=1 m



A

B

C

D

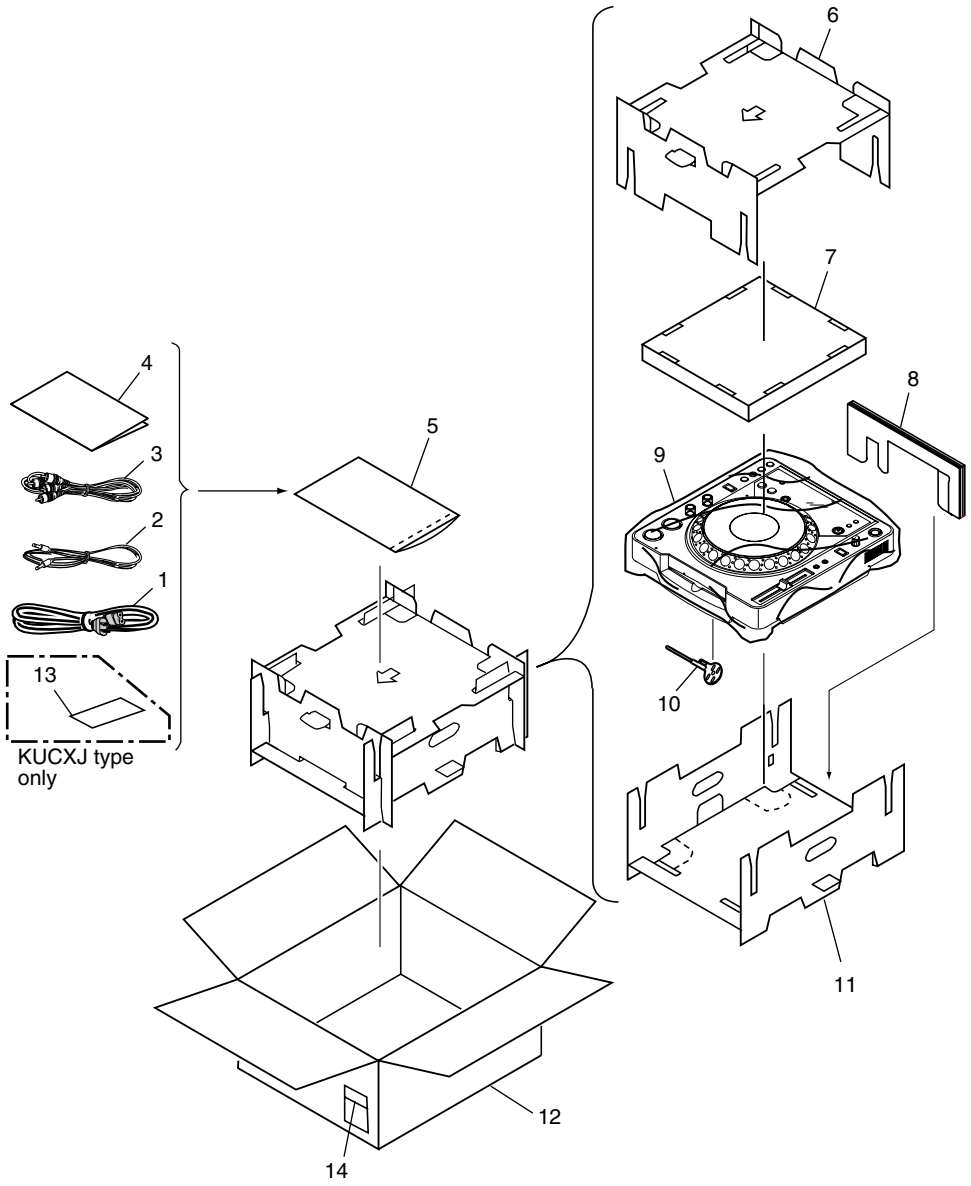
E

F

2. EXPLODED VIEWS AND PARTS LIST

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Screws adjacent to ▼ mark on product are used for disassembly.*
- *For the applying amount of lubricants or glue, follow the instructions in this manual. (In the case of no amount instructions, apply as you think it appropriate.)*

2.1 PACKING



PACKING parts List

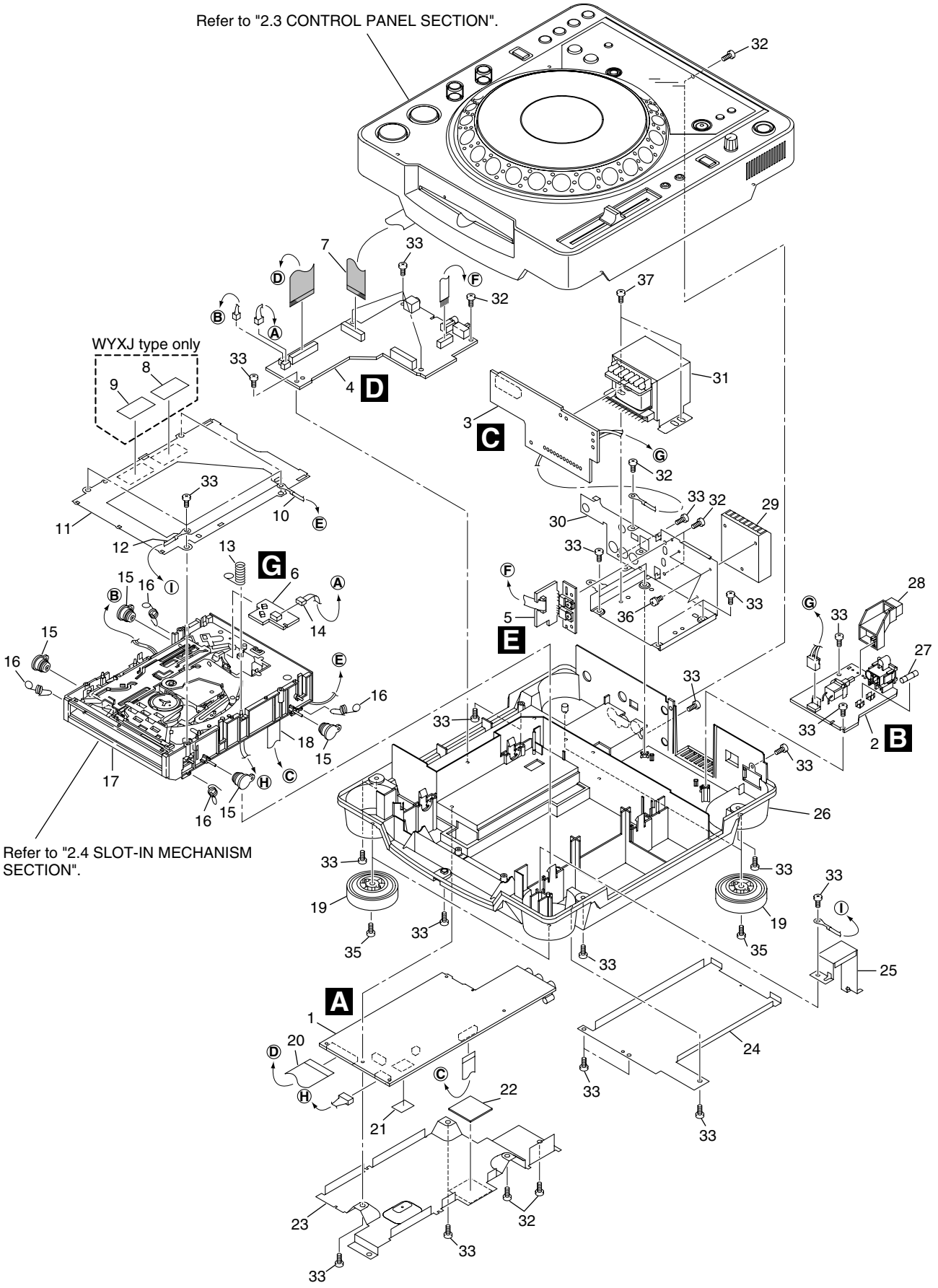
Mark	No.	Description	Part No.
⚠	1	AC Power Cord	See Contrast table(2)
	2	Control Cord	PDE-319
	3	Audio Cord	VDE1052
	4	Operating Instructions	See Contrast table(2)
	5	Polyethylene Bag	Z21-038
	6	Pad B	DHA1556
	7	Pad C	DHA1557
	8	Pad D	DHA1558
	9	Sheet	RHX1006
	10	Push Rod	DEX1008
	11	Pad A	DHA1555
	12	Packing Case	See Contrast table(2)
NSP	13	Warranty Card	See Contrast table(2)
NSP	14	Label	VRW1629

(2) CONTRAST TABLE

CDJ-800/KUCXJ and WYXJ types are constructed the same except for the following:

Mark	No.	Symbol and Description	Part No.	
			KUCXJ	WYXJ
⚠	1	AC Power Cord	ADG7021	ADG1154
	4	Operating Instructions (KUCXJ)	DRB1333	Not used
	4	Operating Instructions (WYXJ)	Not used	DRB1332
	12	Packing Case	DHG2291	DHG2290
NSP	13	Warranty Card	ARY7043	Not used

2.2 EXTERIOR SECTION



EXTERIOR SECTION parts List

Mark	No.	Description	Part No.
	1	MAIN Assy	DWG1563
	2	AC IN Assy	See Contrast table(2)
	3	TRNS Assy	DWR1364
	4	SECB Assy	DWR1361
	5	REGB Assy	DWR1362
	6	SLMB Assy	DWS1322
	7	19P F•F•C/60V	DDD1222
	8	Caution Label	See Contrast table(2)
	9	Caution Label HE	See Contrast table(2)
	10	Earth Lead Unit	PDF1104
	11	Mecha Plate	DNH2339
NSP	12	Cord with Plug	DE010VF0
	13	Earth Spring	DBH1398
	14	Connector Assy	PG03KK-E22
	15	Damper	CNV6011
	16	Float Spring G5	DBH1494
NSP	17	Slot-in Mecha S4 Assy	DXA1946
	18	Lead Card 16P	DDD1221
	19	Insulator Assy	DXA1945
	20	25P F•F•C/60V	DDD1223
NSP	21	Silicon Rubber D5 L	DEB1456
	22	Bottom Cushion S4	DEC2506
	23	Bottom Plate P	DNH2531
	24	Bottom Plate M	DNH2546
	25	Earth Plate	DNH2532
NSP	26	Chassis	See Contrast table(2)
⚠	27	FU11 Fuse	See Contrast table(2)
	28	Power Knob	DAC2073
	29	Heat Sink	DNG1086
	30	Trans Plate	DNH2529
⚠	31	T21 Power Transformer	See Contrast table(2)
	32	Screw	BBZ30P080FMC
	33	Screw	BPZ30P080FZK
	34	. . . . .	
	35	Screw	IPZ30P100FMC
	36	Screw	PMA30P060FMC
	37	Screw	BBZ40P060FMC

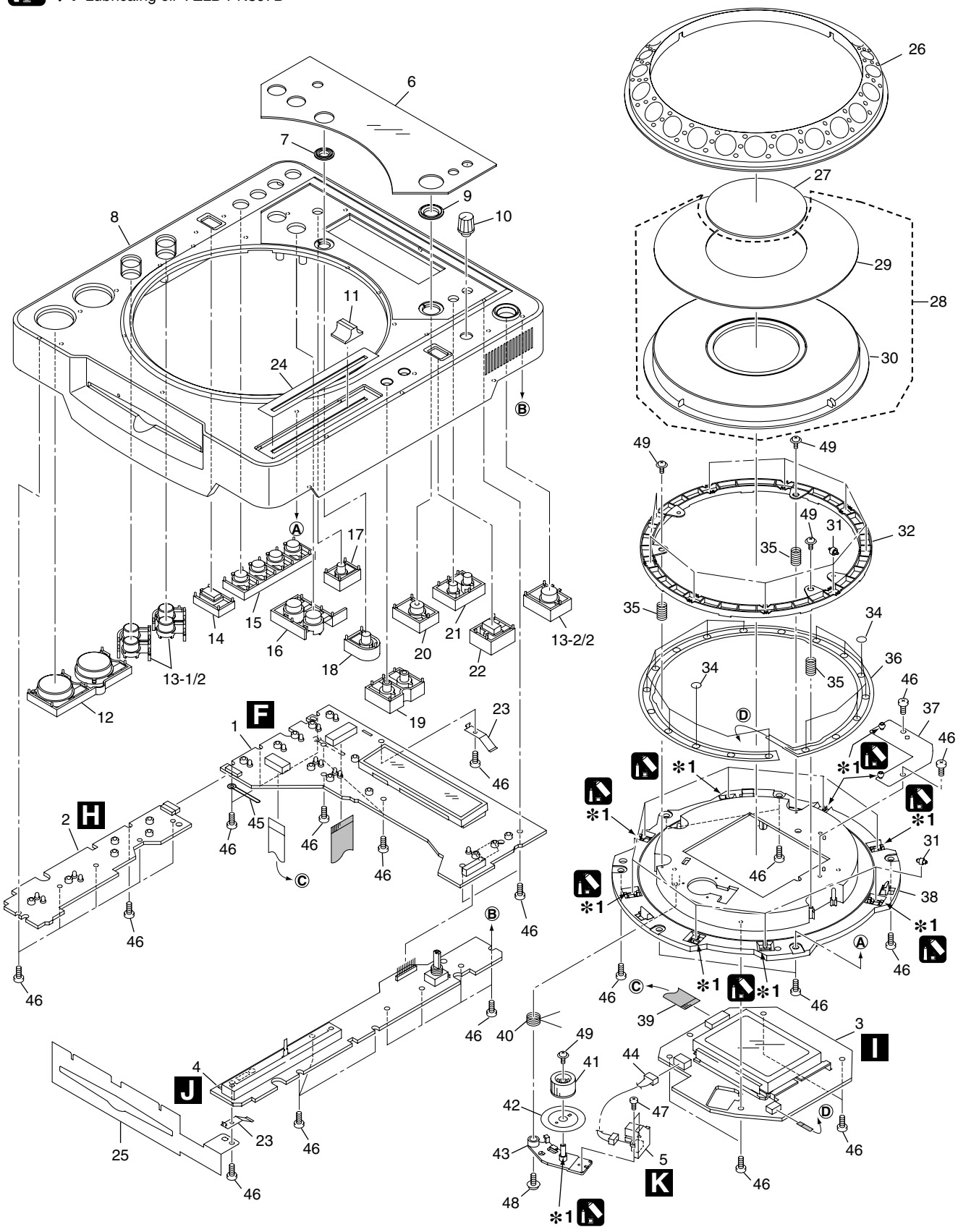
(2) CONTRAST TABLE

CDJ-800/KUCXJ and WYXJ types are constructed the same except for the following:

Mark	No.	Symbol and Description	Part No.	
			KUCXJ	WYXJ
	2	AC IN Assy	DWR1366	DWR1363
	8	Caution Label	Not used	VRW1094
	9	Caution Label HE	Not used	PRW1233
NSP	26	Chassis	DNK4060	DNK4059
⚠	27	FU11 Fuse (1.6A/125V)	REK1077	Not used
⚠	27	FU11 Fuse (T800mA/L250V)	Not used	REK1021
⚠	31	T21 Power Transformer	DTT1169	DTT1168

2.3 CONTROL PANEL SECTION

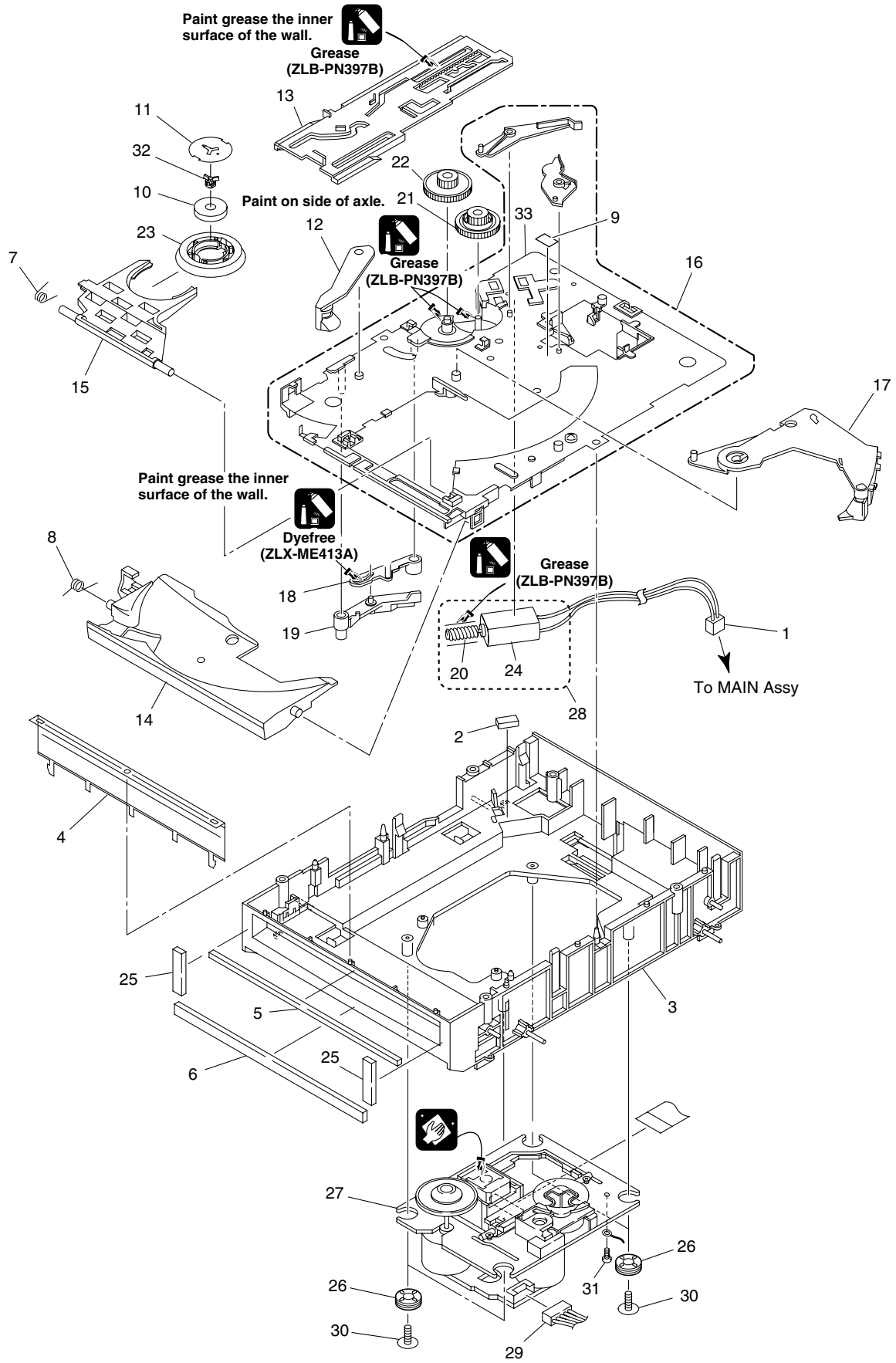
✻1 Lubricaing oil : ZLB-PN397B



CONTROL PANEL SECTION parts List

Mark	No.	Description	Part No.
	1	MFLB Assy	DWG1564
	2	KSWB Assy	DWS1321
	3	JFLB Assy	DWG1565
	4	SLDB Assy	DWS1323
	5	JOGB Assy	DWG1566
	6	Display Panel	DAH2139
	7	RELOOP Guard	DNK4057
	8	Control Panel	DNK4054
	9	QR Guard	DNK4058
	10	Rotary Knob C	DAA1143
	11	Slide Knob	DAC2067
	12	PLAY Knob	DAC2059
	13	SET Knob (EJECT)	DAC2060
	14	REVERSE Knob	DAC2068
	15	AUTO BEAT LOOP Knob	DAC2069
	16	LOOP Knob	DAC2066
	17	TIME MODE Knob	DAC2065
	18	RELOOP Knob	DAC2064
	19	TEMPO Knob	DAC2061
	20	QUICK RETURN Knob	DAC2070
	21	CALL Knob	DAC2062
	22	VINYL Knob	DAC2063
	23	Earth Plate (CU)	DBK1224
	24	Slide Sheet 1C	DAH1988
	25	Vessel Sheet	DEC2495
	26	JOG B	DNK4068
	27	JOG Panel	DAH2182
	28	JOG Assy-S	DXX2521
	29	JOG Plate	DAH2052
	30	JOG A	DNK4067
	31	Roller A Assy	DXB1773
	32	SW Ring	DNK4070
	33	. . . . .	
	34	SW Cushion HH48	DEC2523
	35	SW Spring	DBH1514
	36	Sheet SW	DSX1060
	37	JOG Stay Assy	DXB1774
	38	JOG Holder	DNK4069
	39	13P F•F•C/60V	DDD1220
	40	Arm Spring	DBH1503
	41	D Gear	DNK4066
	42	ENC Plate	DEC2498
	43	Gear Arm	DNK4065
	44	Connector Assy	PF04PP-B07
	45	Cord Clamper	RNH-184
	46	Screw	BPZ30P080FZK
	47	Screw	BPZ20P060FMC
	48	Screw	IPZ30P100FMC
	49	Screw	PBA1062

2.4 SLOT-IN MECHANISM SECTION

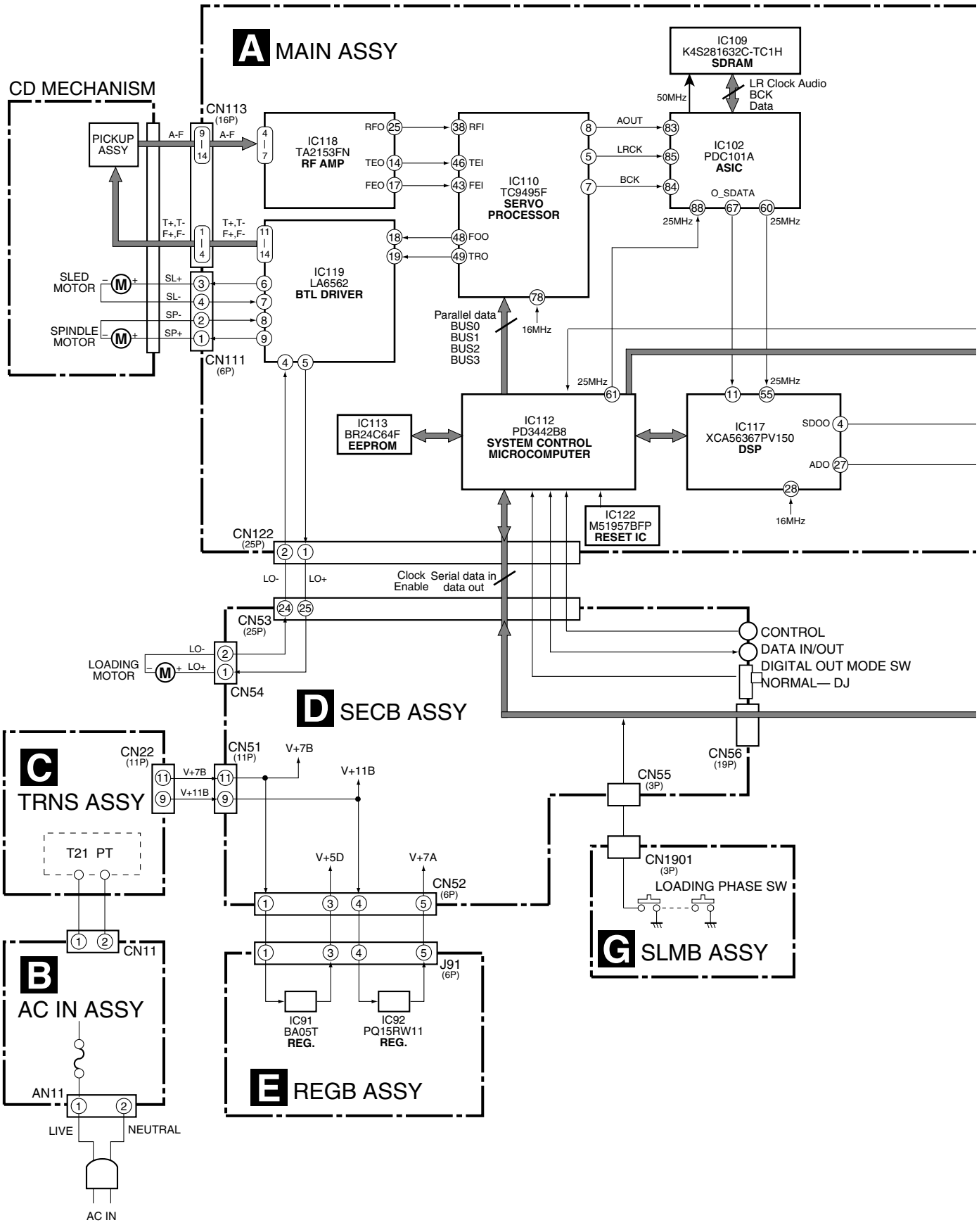


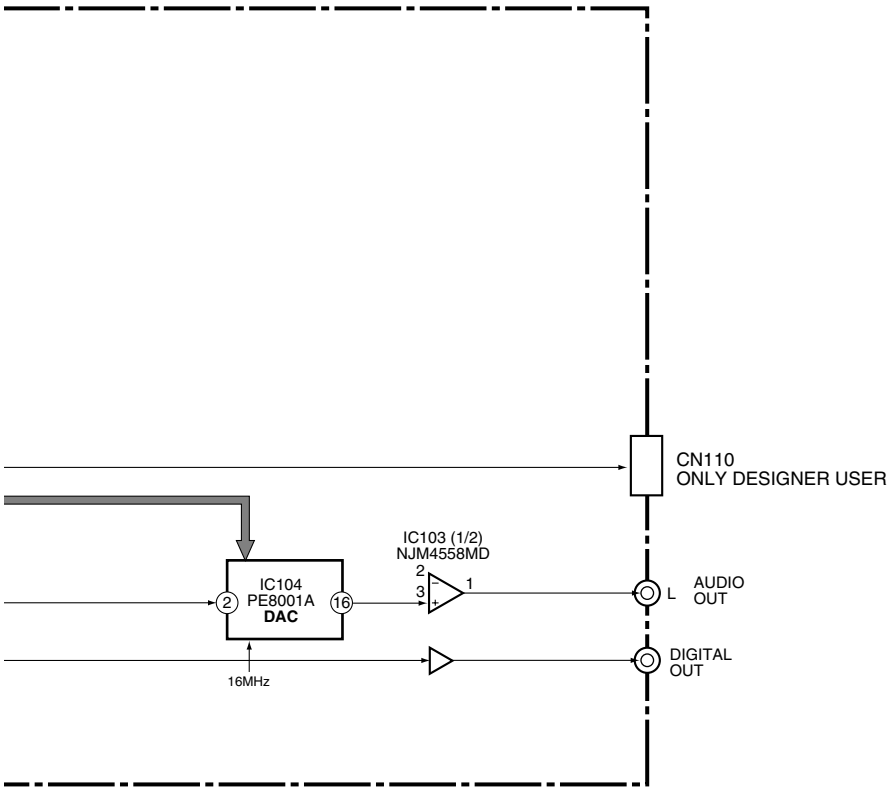
SLOT-IN MECHANISM SECTION parts List

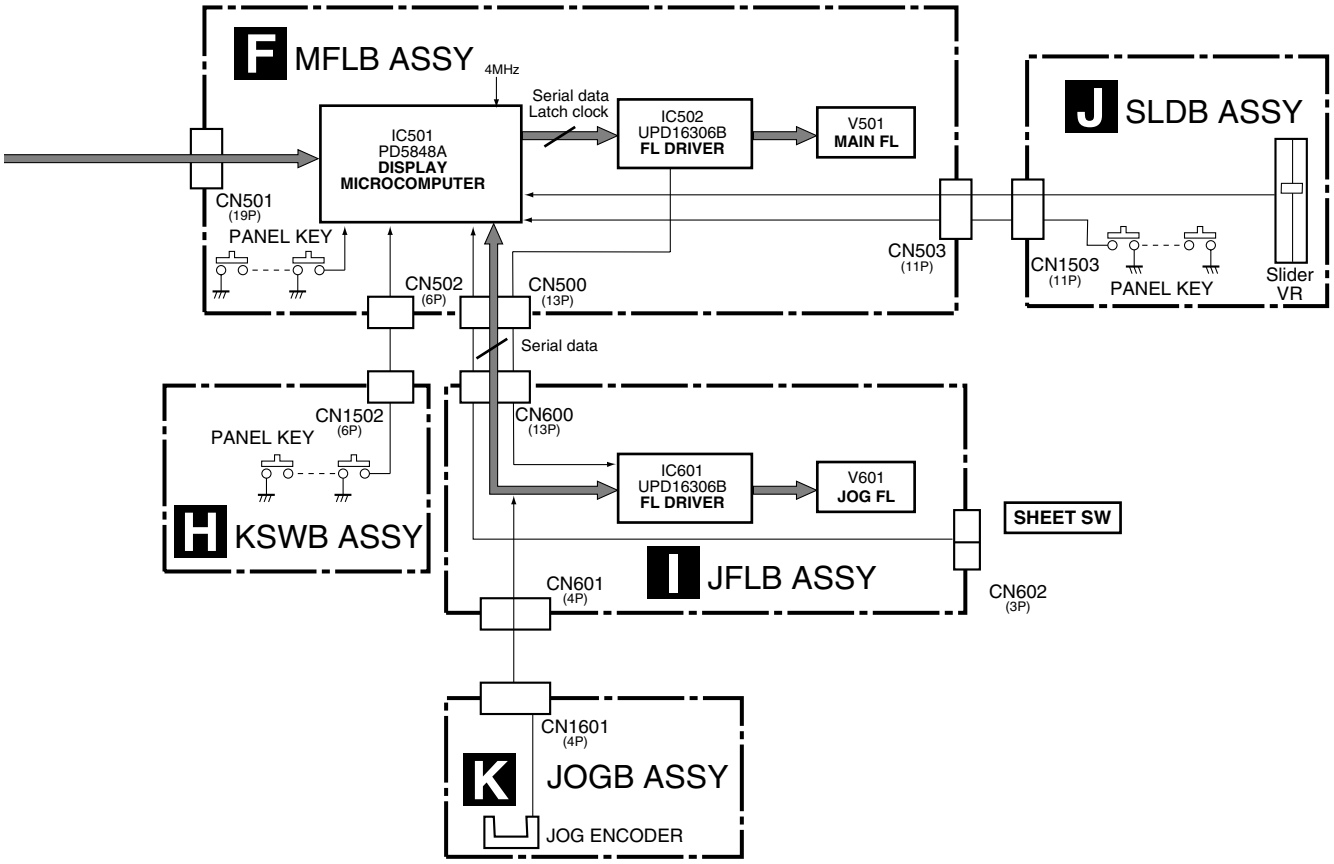
Mark	No.	Description	Part No.
	1	Connector Assy	DKP3522
	2	Spacer Por (T3)	DEB1566
	3	Float Base S4 Assy	DXB1772
	4	Front Sheet	DED1132
	5	Vessel Cushion A	DEC2455
	6	Vessel Cushion B	DEC2456
	7	Clamp Spring	DBH1374
	8	Guide Spring	DBH1375
	9	SW. Lever Spacer (Pet)	DEC2420
	10	Clamp Magnet	DMG1009
	11	Yoke S4	DNH2528
	12	Loading Lever	DNK3406
	13	Main Cam	DNK3407
	14	Disc Guide	DNK3478
	15	Clamp Arm	DNK3576
	16	Loading Base Assy-S	DEA1022
	17	Eject Lever	DNK3684
	18	Lever AP	DNK3835
	19	Lever BP	DNK3836
NSP	20	Worm Gear	DNK3410
	21	Loading Gear	DNK3409
	22	Drive Gear	DNK3565
	23	Clamper S4	DNK4072
NSP	24	DC Motor	DXM1173
	25	Vessel Cushion C	DEC2457
	26	Float Rubber S4	DEB1568
	27	CD Mechanism	DXA-DA114
	28	DC Motor Assy-S	DXX2510
	29	Connector Assy (6P)	PF06PP-B25
	30	Screw DM	DBA1104
	31	Screw	BBZ20P040FMC
	32	Centering Guide	DNK4073
NSP	33	Loading Base	DNK3637

3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

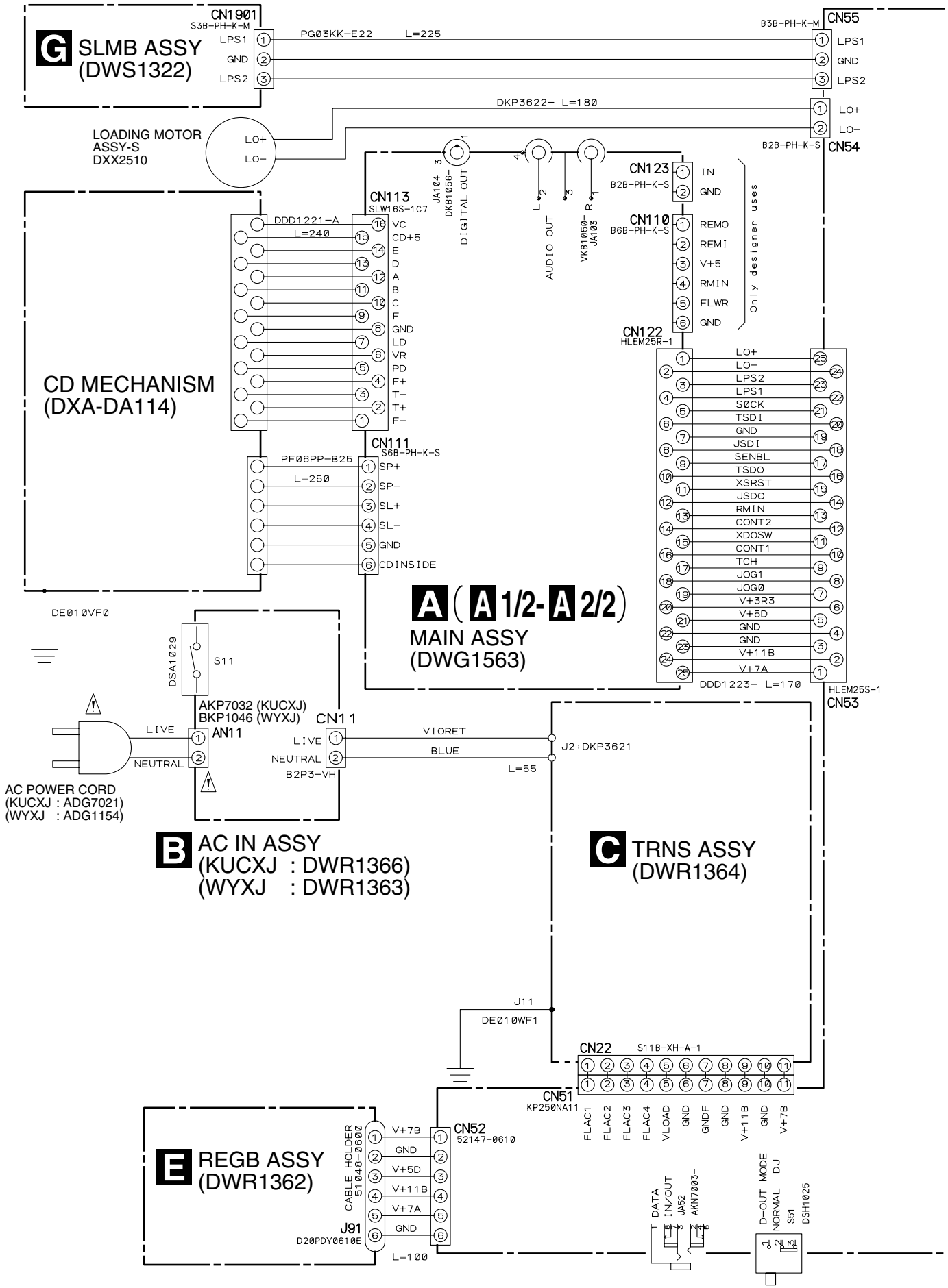
3.1 BLOCK DIAGRAM



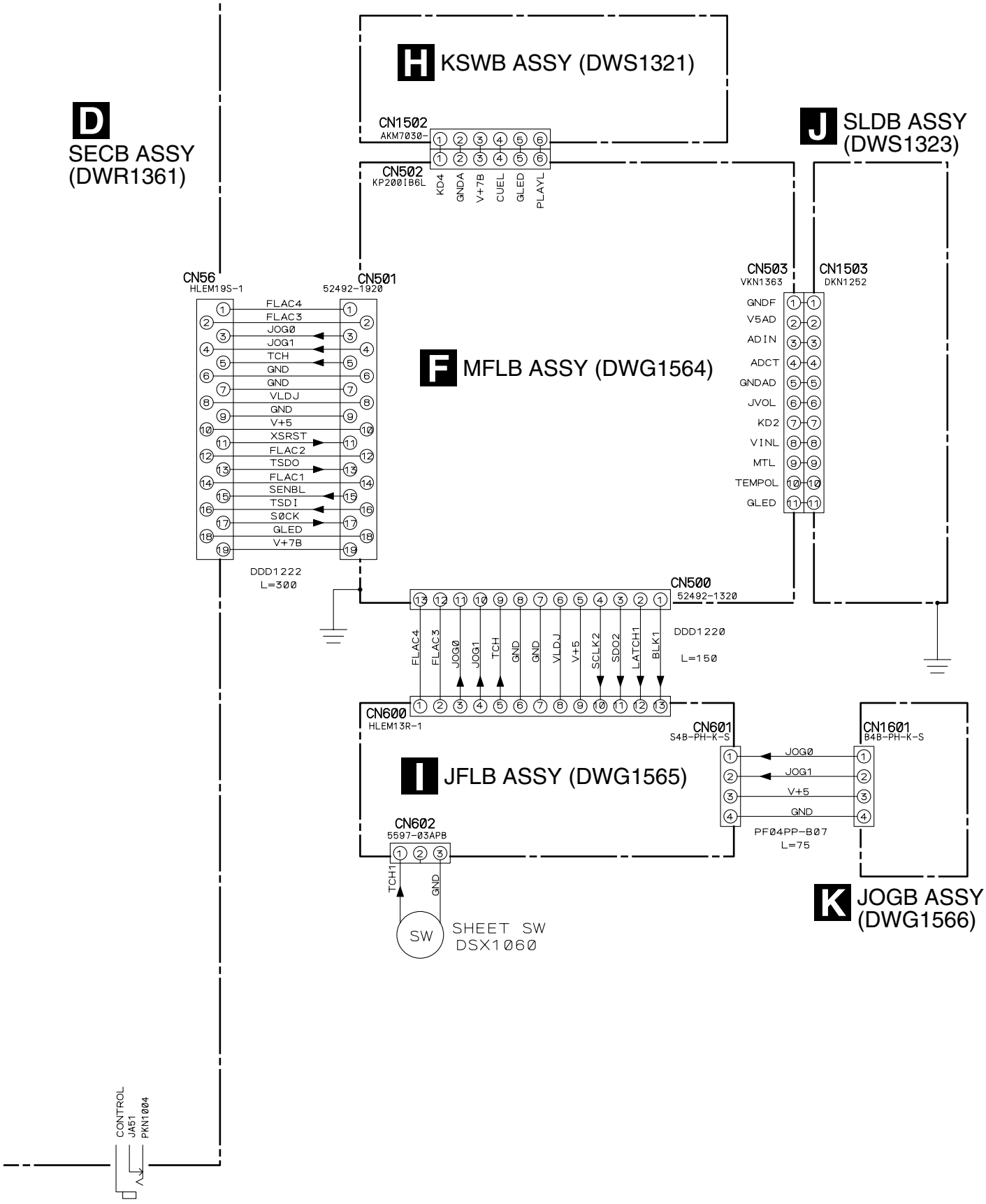

CN110
ONLY DESIGNER USER
IC103 (1/2)
NJM4558MD
IC104
PE8001A
DAC
AUDIO
OUT
L
DIGITAL
OUT
16MHz


F MFLB ASSY
4MHz
Serial data
Latch clock
IC501
PD5848A
DISPLAY
MICROCOMPUTER
IC502
UPD16306B
FL DRIVER
V501
MAIN FL
CN501
(19P)
PANEL KEY
CN502
(6P)
CN500
(13P)
CN503
(11P)
J SLDB ASSY
CN1503
(11P)
PANEL KEY
Slider
VR
Serial data
CN1502
(6P)
PANEL KEY
H KSWB ASSY
CN600
(13P)
IC601
UPD16306B
FL DRIVER
V601
JOG FL
SHEET SW
I JFLB ASSY
CN601
(4P)
CN602
(3P)
CN1601
(4P)
K JOGB ASSY
JOG ENCODER

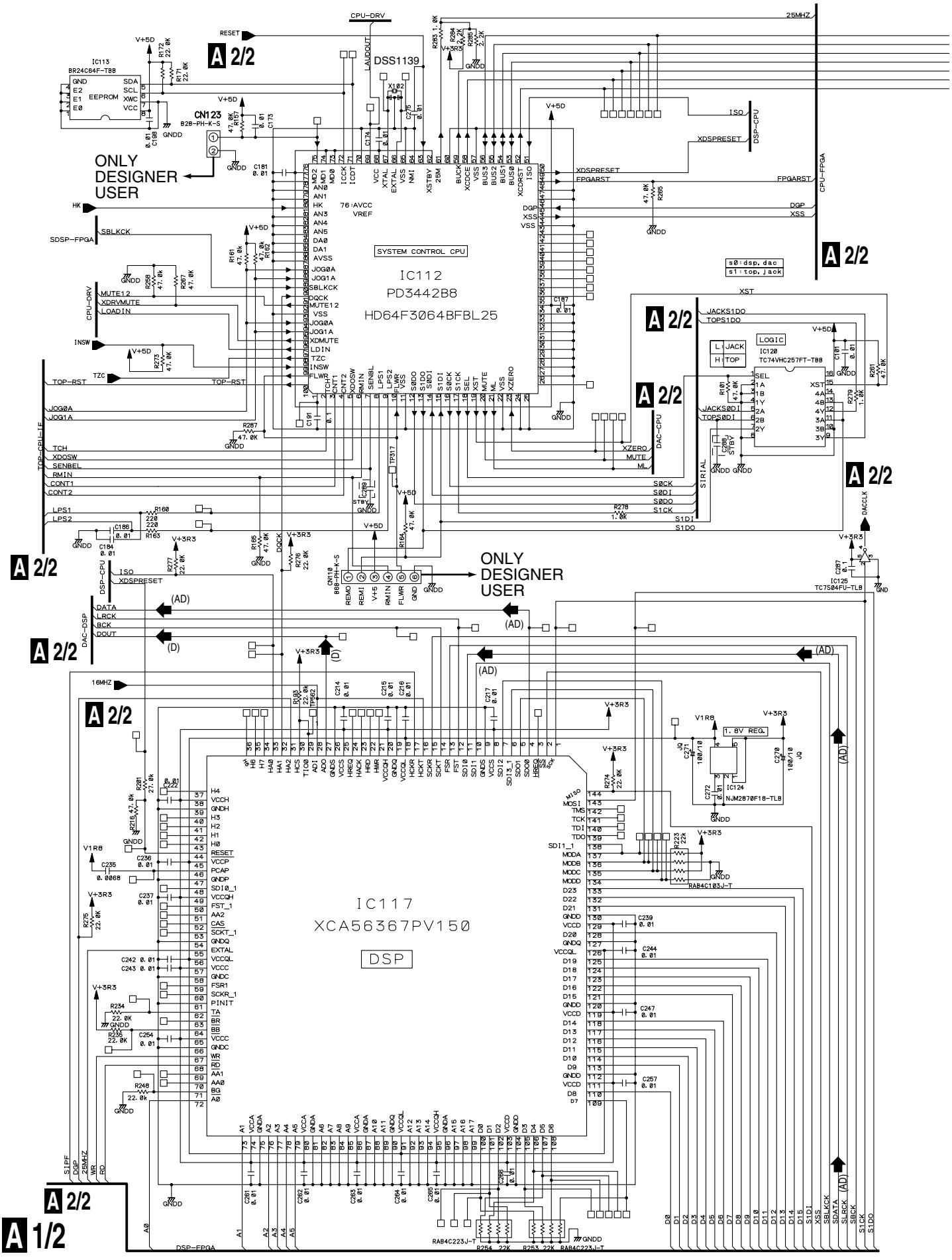
3.2 OVERALL WIRING DIAGRAM



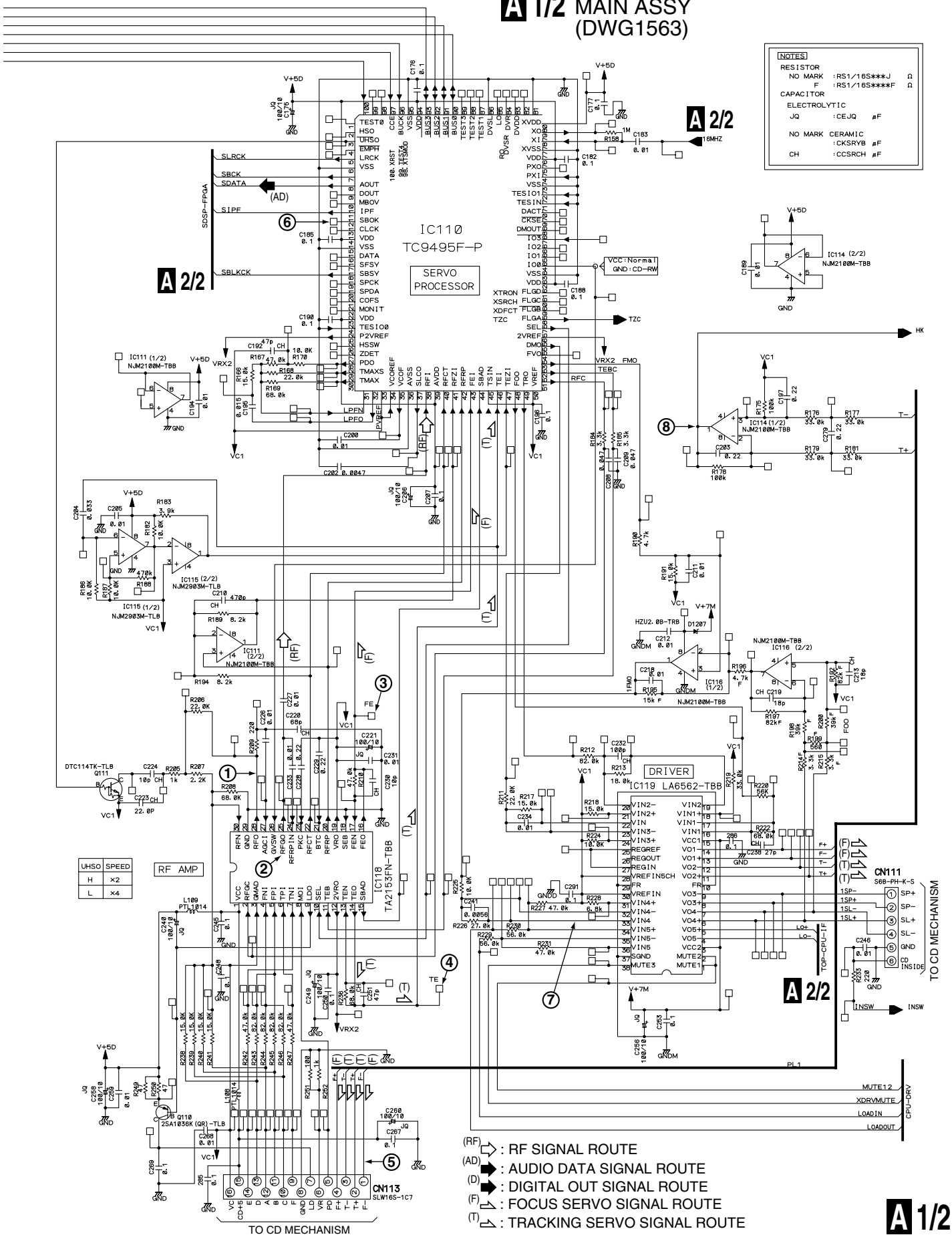
Note : When ordering service parts, be sure to refer to
"EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".



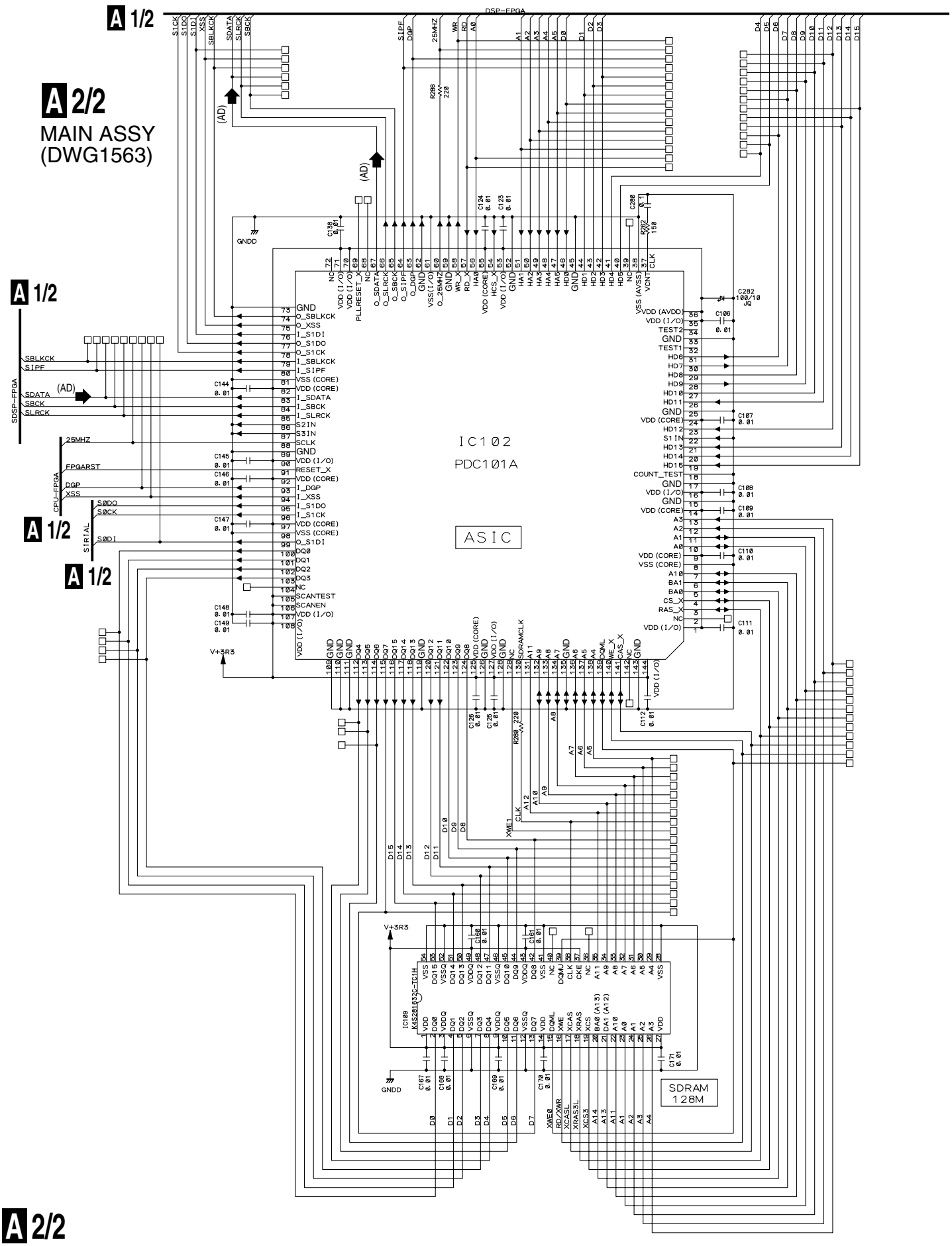
3.3 MAIN ASSY(1/2)

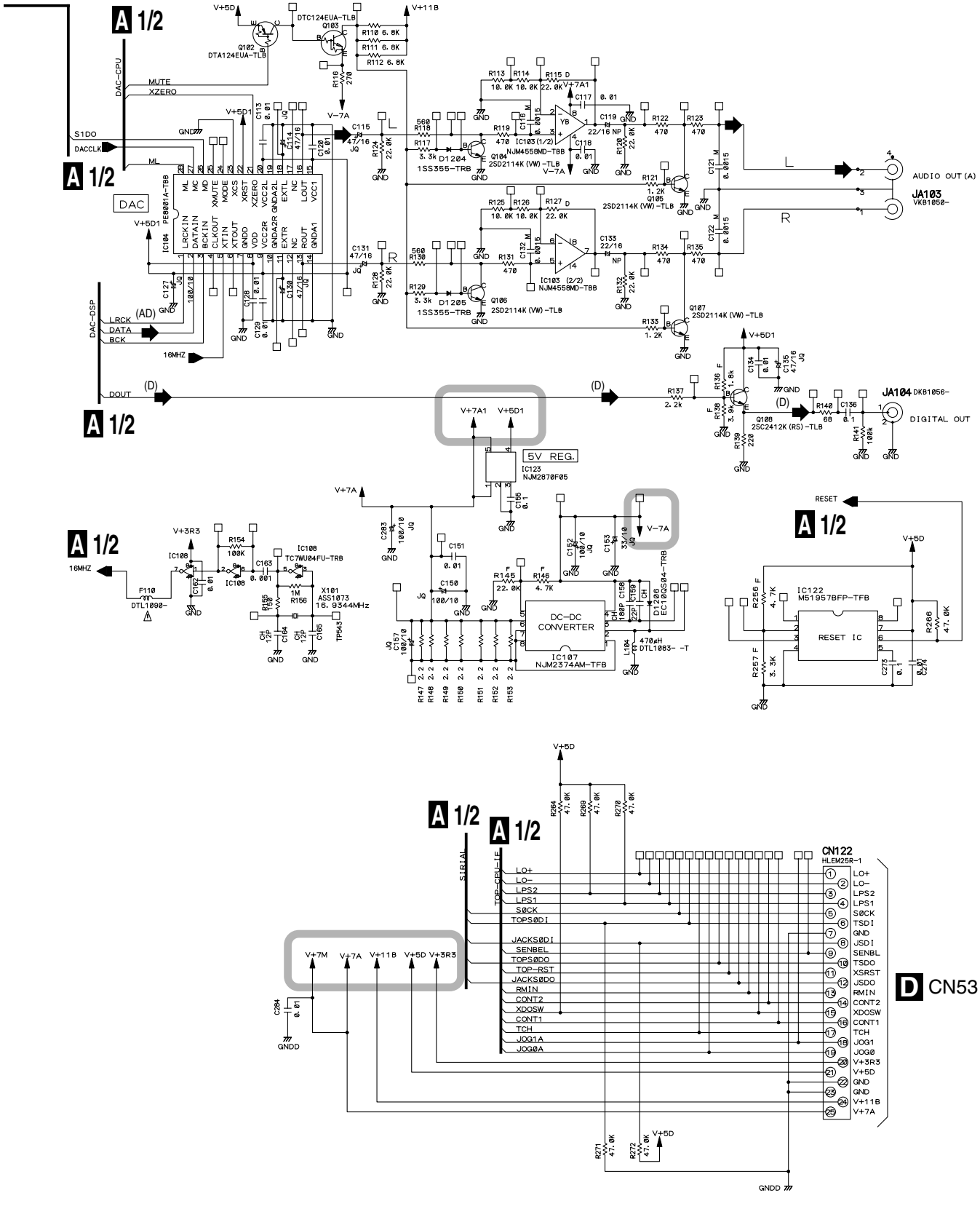


A 1/2 MAIN ASSY (DWG1563)



3.4 MAIN ASSY(2/2)





NOTES

RESISTOR
NO MARK : RS1/16S***J Ω
F : RS1/16S****F Ω
D : RS1/16S****D Ω

CAPACITOR
NO MARK ELECTROLYTIC
: CEAT μF
JQ : CEJQ μF
NP : CEJQNP μF

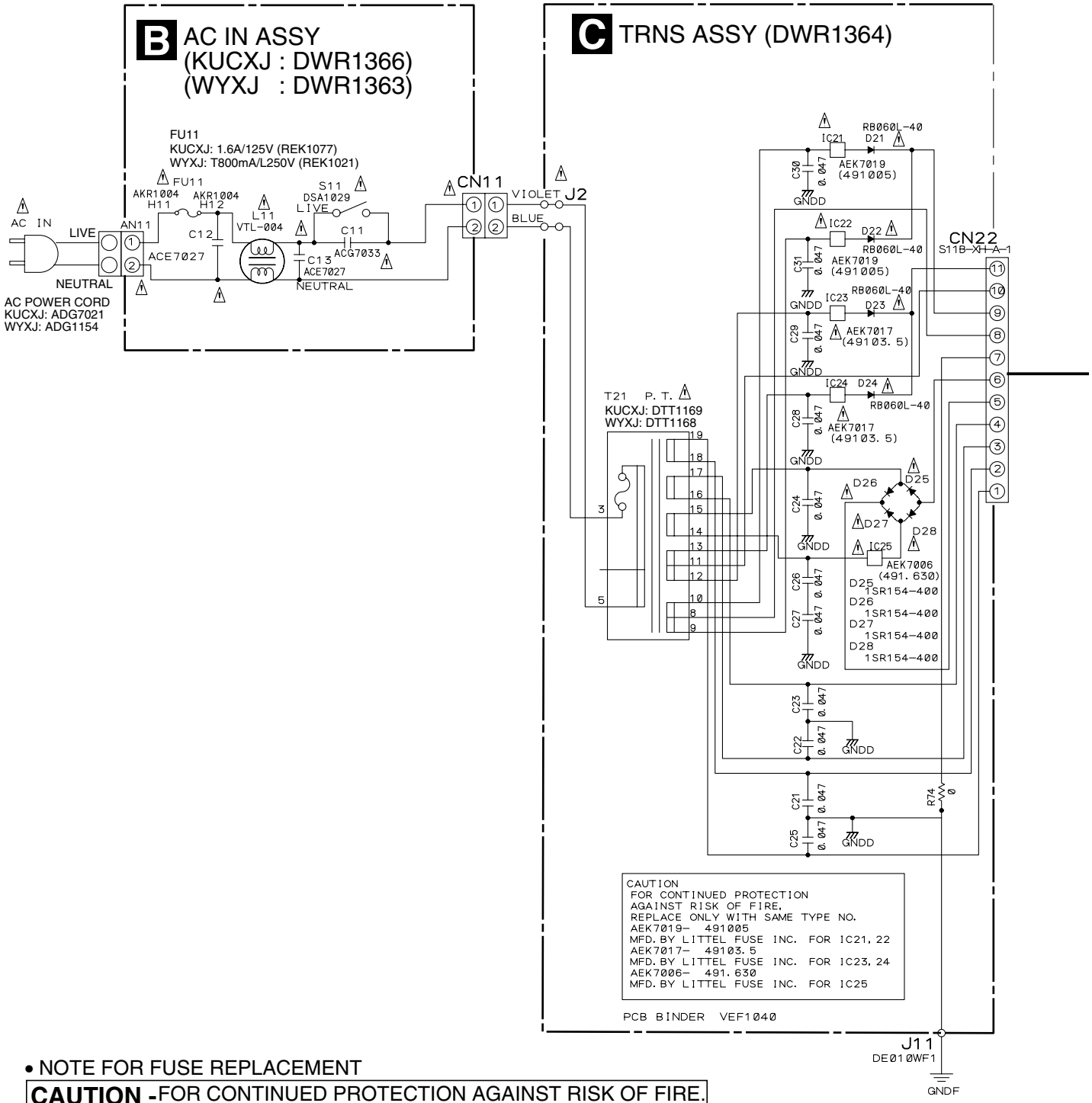
NO MARK CERAMIC
: CKSRYB μF
CH : CCSRCH μF
M : CQMA μF
STBY : IS STANBY

: AUDIO SIGNAL ROUTE
(AD) : AUDIO DATA SIGNAL ROUTE
(D) : DIGITAL OUT SIGNAL ROUTE

: The power supply is shown with the marked box.

A 2/2

3.5 AC IN, TRNS, SECB and REGB ASSYS



• NOTE FOR FUSE REPLACEMENT

CAUTION - FOR CONTINUED PROTECTION AGAINST RISK OF FIRE.
REPLACE WITH SAME TYPE AND RATINGS ONLY.

THE ⚠ MARK FOUND ON SOME COMPONENT PARTS INDICATES THE IMPORTANCE OF THE SAFETY FACTOR OF THE PARTS. THERFORE, WHEN REPLACING, BE SURE TO USE PARTS OF IDENTICAL DESIGNATION.

Notes

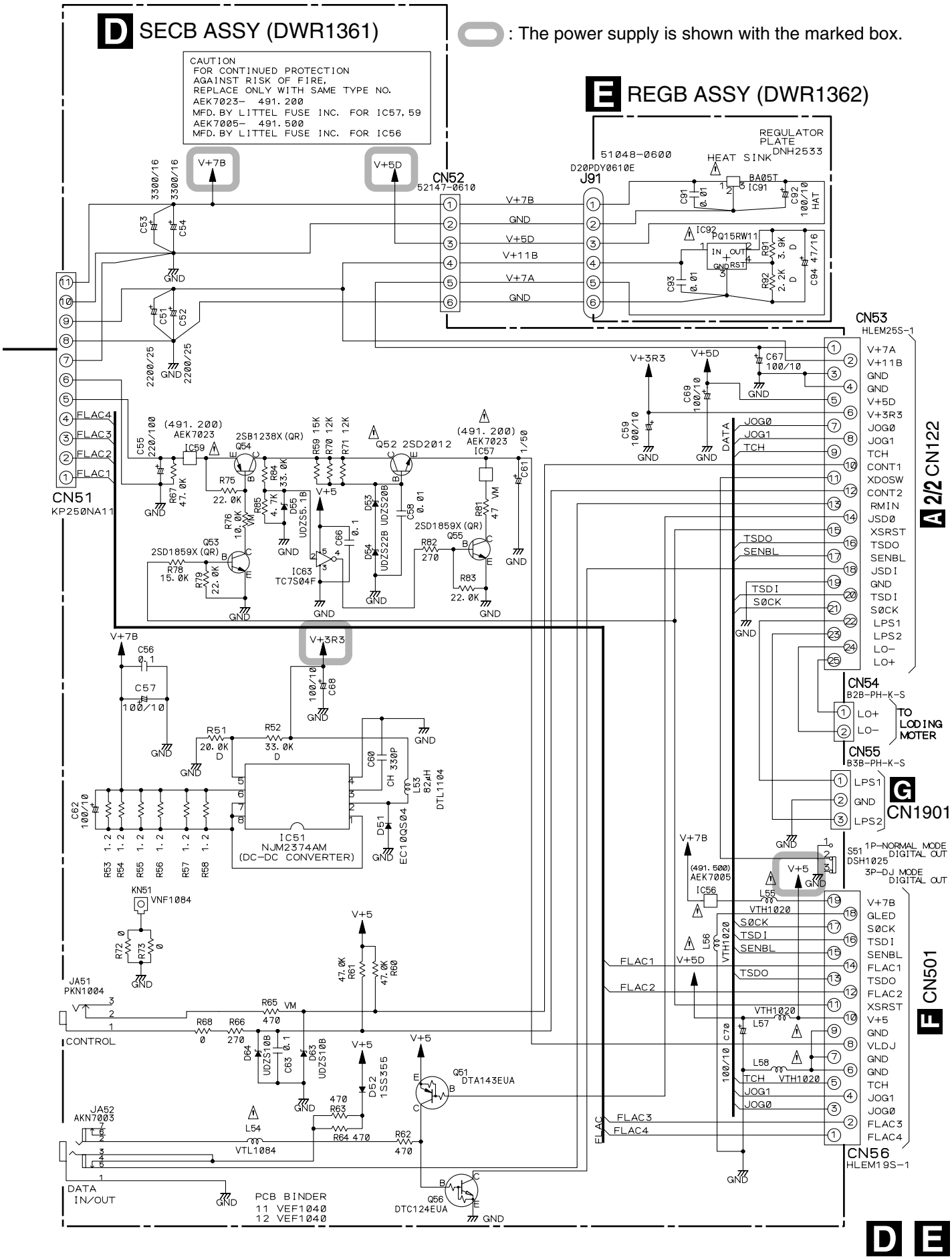
RESISTOR

VM	: RD1/2VM****J	Ω
D	: RS1/16S****D	Ω
NO MARK	: RS1/16S***J	Ω

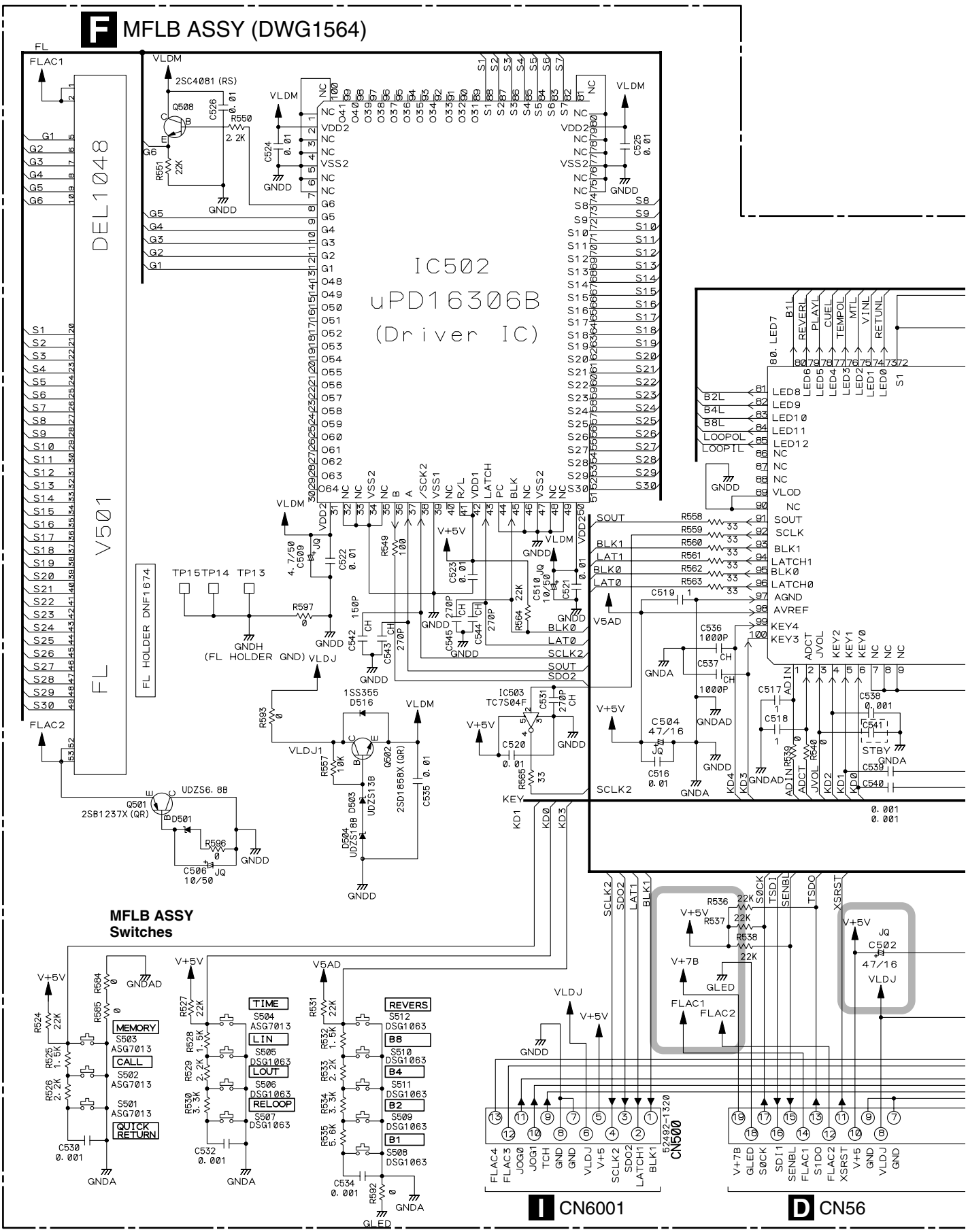
CAPACITOR

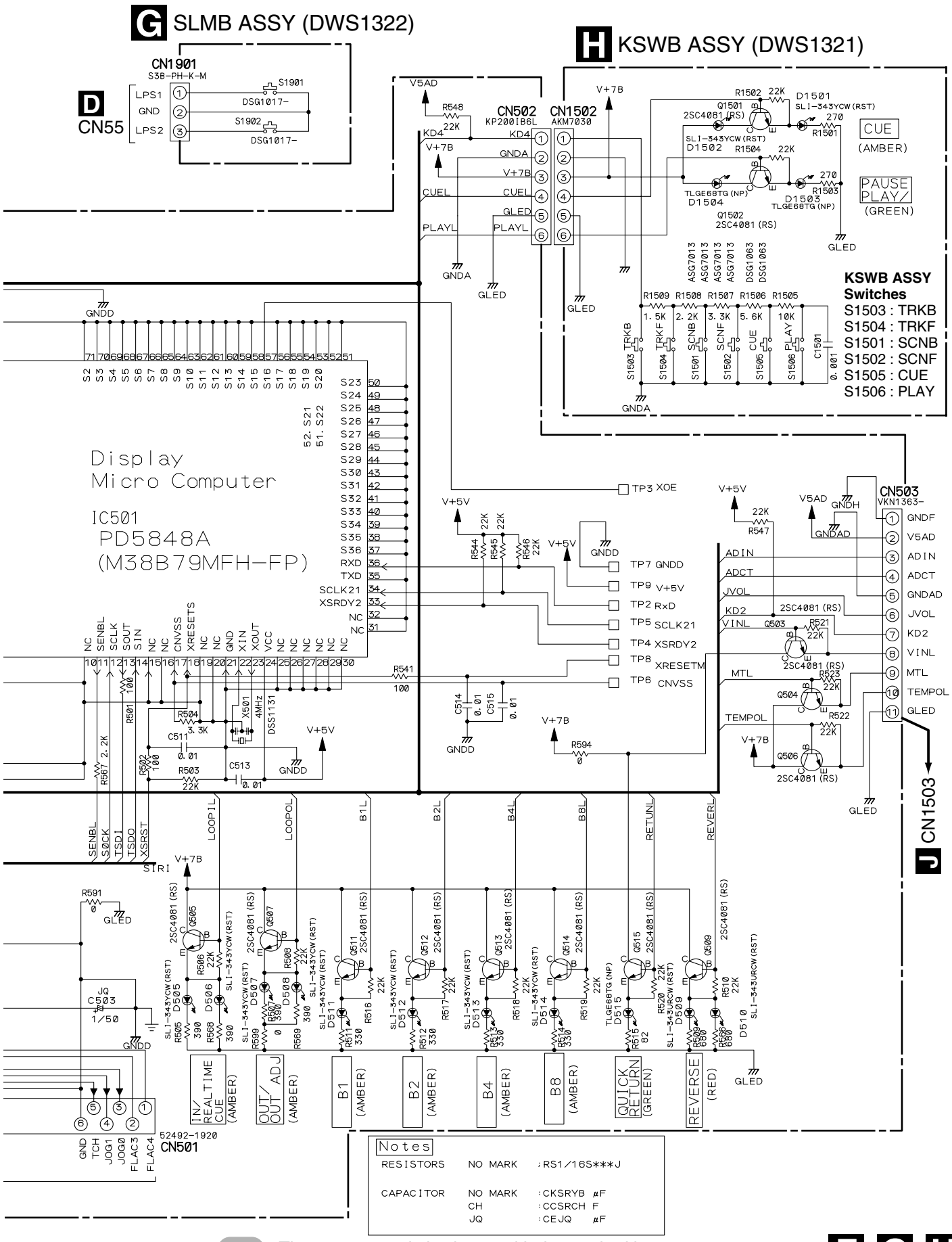
NO MARK ELECTROLYTIC	: CEAT	μF
NO MARK CERAMIC	: CKSRYB	μF

B C

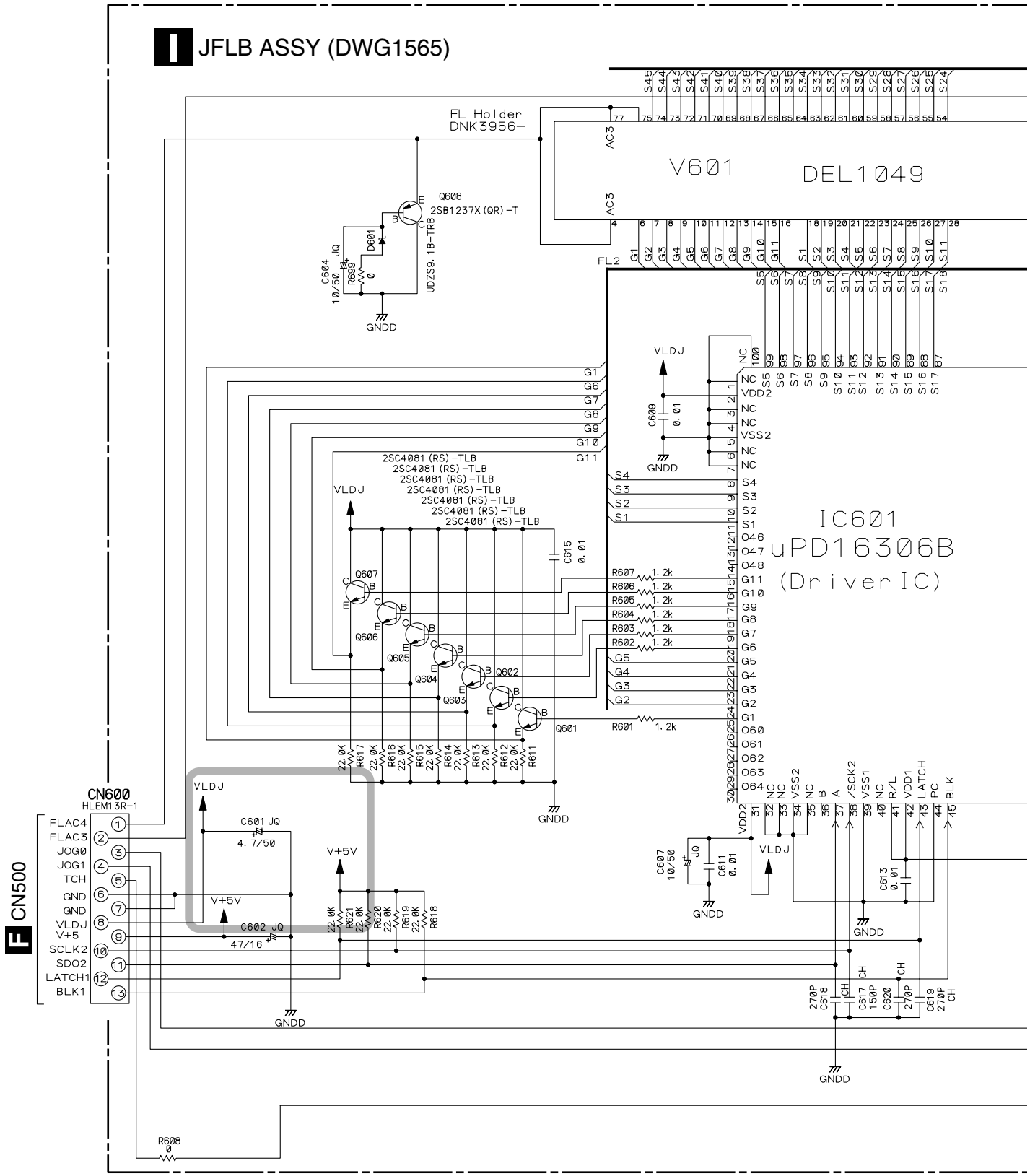

D SECB ASSY (DWR1361)
: The power supply is shown with the marked box.
CAUTION
FOR CONTINUED PROTECTION
AGAINST RISK OF FIRE,
REPLACE ONLY WITH SAME TYPE NO.
AEK7023- 491.200
MFD. BY LITTEL FUSE INC. FOR IC57, 59
AEK7005- 491.500
MFD. BY LITTEL FUSE INC. FOR IC56
E REGB ASSY (DWR1362)
REGULATOR PLATE DNH2533
HEAT SINK
51048-0600
D20PDY0610E
J91
CN52
52147-0610
V+7B
V+5D
V+11B
V+7A
GND
IC91 BA05T
IC92 PQ15RW11
CN53
HLEM25S-1
A 2/2 CN122
CN51
KP250NA11
FLAC4
FLAC3
FLAC2
FLAC1
IC59
Q54 2SB1238X(QR)
Q52 2SD2012
IC57
Q53 2SD1859X(QR)
Q55 2SD1859X(QR)
IC63 TC7S04F
V+3R3
IC51 NJM2374AM (DC-DC CONVERTER)
D51 EC10QS04
L53 82μH DTL1104
KN51 VNF1084
JA51 PKN1004
CONTROL
JA52 AKN7003
L54 VTL1084
Q51 DTA143EUA
Q56 DTC124EUA
DATA IN/OUT
PCB BINDER
11 VEF1040
12 VEF1040
DATA
JOG0
JOG1
TCH
CONT1
XDOSW
CONT2
RMIN
JSD0
XSRST
TSDO
SENBL
JSDI
TSDI
SØCK
LPS1
LPS2
LO−
LO+
CN54
B2B-PH-K-S
TO LODING MOTER
CN55
B3B-PH-K-S
G CN1901
S51 DSH1025
1P−NORMAL MODE DIGITAL OUT
3P−DJ MODE DIGITAL OUT
IC56
L55 VTH1020
L56 VTH1020
L57 VTH1020
L58 VTH1020
F CN501
CN56
HLEM19S-1
D E

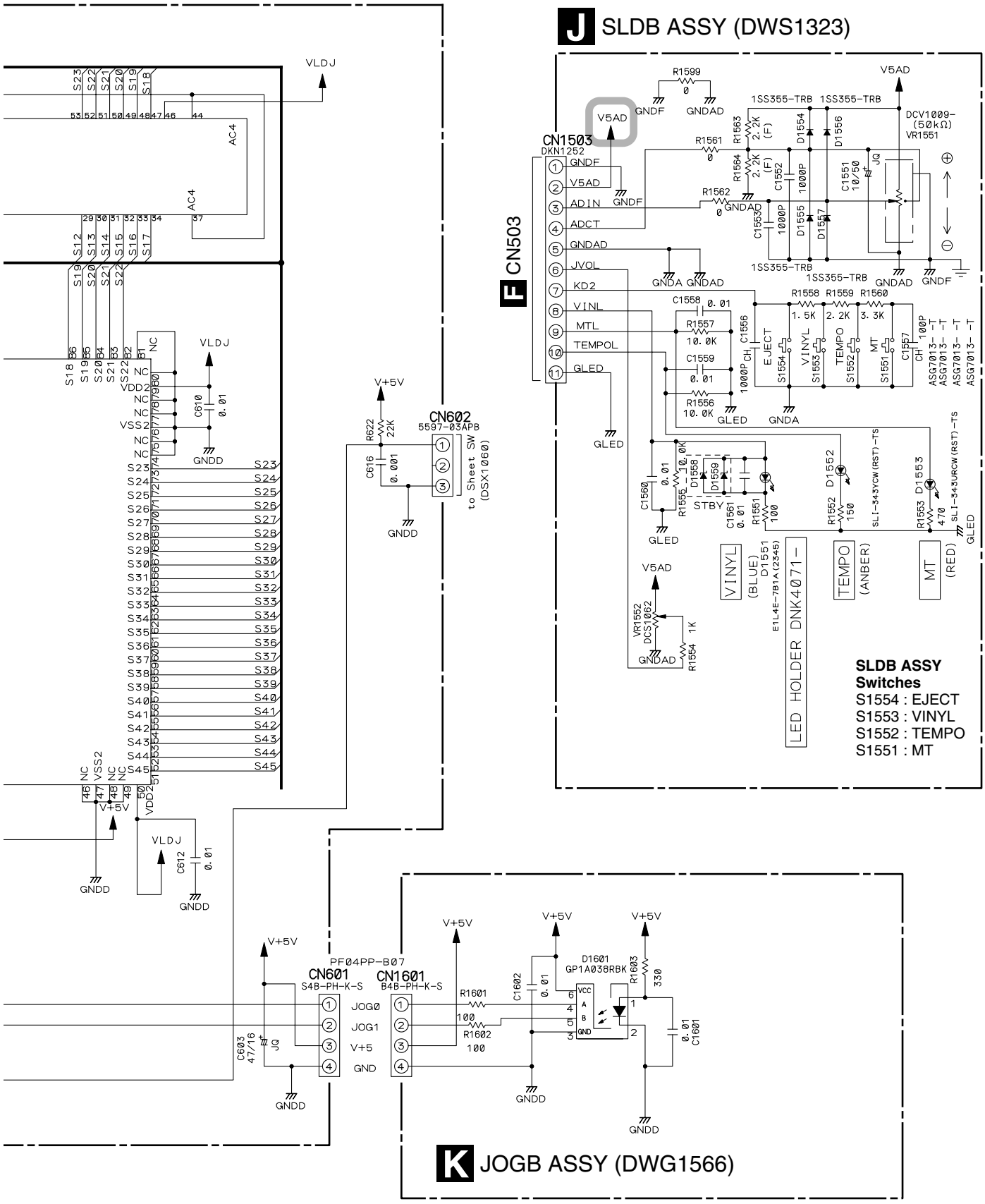
3.6 MFLB, SLMB and KSWB ASSYS




G SLMB ASSY (DWS1322)
H KSWB ASSY (DWS1321)
D CN55
CN1901
S3B-PH-K-M
LPS1
GND
LPS2
S1901
DSG1017-
S1902
DSG1017-
CN502
KP200IB6L
CN1502
AKM7030
KD4
GNDA
V+7B
CUEL
GLED
PLAYL
R548 22K
R1502 22K
D1501
SLI-343YCW(RST)
Q1501
2SC4081(RS)
R1501 270
CUE
(AMBER)
D1502
R1504 22K
TLGE68TG(NP)
D1504
R1503 270
D1503
TLGE68TG(NP)
PAUSE
PLAY/
(GREEN)
Q1502
2SC4081(RS)
ASG7013
DSG1063
KSWB ASSY
Switches
S1503 : TRKB
S1504 : TRKF
S1501 : SCNB
S1502 : SCNF
S1505 : CUE
S1506 : PLAY
R1509 1.5K
R1508 2.2K
R1507 3.3K
R1506 5.6K
R1505 10K
C1501 0.001
GNDD
Display
Micro Computer
IC501
PD5848A
(M38B79MFH-FP)
TP3 XOE
TP7 GNDD
TP9 V+5V
TP2 RxD
TP5 SCLK21
TP4 XSRDY2
TP8 XRESETM
TP6 CNVSS
R541 100
X501 4MHz
DSS1131
C511 0.01
C513 0.01
R503 22K
R504 3.3K
R501 100
R502 100
R567 2.2K
C514 0.01
C515 0.01
R544 22K
R545 22K
R546 22K
R594 0
CN503
VKN1363-
GNDF
V5AD
ADIN
ADCT
GNDAD
JVOL
KD2
VINL
MTL
TEMPOL
GLED
R547 22K
GNDH
R521 22K
R523 22K
R522 22K
Q503
Q504
Q506
2SC4081(RS)
CN1503
J
SENBL
SCCK
TSDI
TSDO
XSRST
STRI
LOOP1L
LOOPOL
B1L
B2L
B4L
B8L
RETUNL
REVERL
R591 0
C503 1/50
GND
TCH
JOG1
JOG0
FLAC3
FLAC4
52492-1920
CN501
IN/
REALTIME
CUE
(AMBER)
OUT/
OUT ADJ
(AMBER)
B1
(AMBER)
B2
(AMBER)
B4
(AMBER)
B8
(AMBER)
QUICK
RETURN
(GREEN)
REVERSE
(RED)
Notes
RESISTORS NO MARK :RS1/16S***J
CAPACITOR NO MARK :CKSRYB μF
CH :CCSRCH F
JQ :CEJQ μF
: The power supply is shown with the marked box.

3.7 JFLB, SLDB and JOGB ASSYS





: The power supply is shown with the marked box.

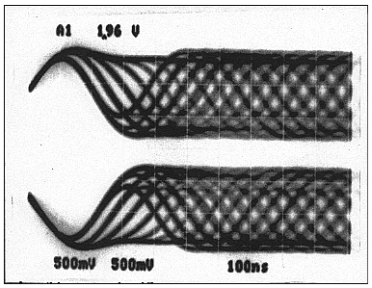
■ Waveforms

A 1/2 MAIN ASSY

① IC118-28 pin (RFO)
V: 500mV/div. H: 100nS/div.

② IC118-25 pin (ARF)
V: 500mV/div. H: 100nS/div.

• Mode: STD
905 play

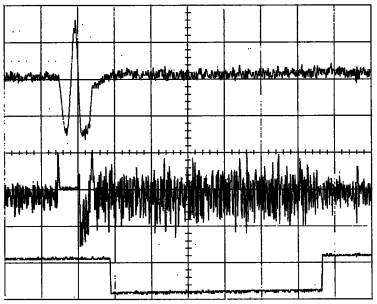


④ IC118-14 pin (TEO)
V: 0.5V/div. H: 1mS/div.

⑤ IC113-1 pin (T+)
V: 1V/div. H: 1mS/div.

⑥ IC110-12 pin (SBOK)
V: 5V/div. H: 1mS/div.

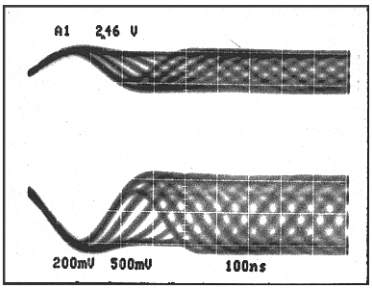
• Mode: SR
Single jump (reverse side only)



① IC118-28 pin (RFO)
V: 200mV/div. H: 100nS/div.

② IC118-25 pin (ARF)
V: 200mV/div. H: 100nS/div.

• Mode: STD
RW play

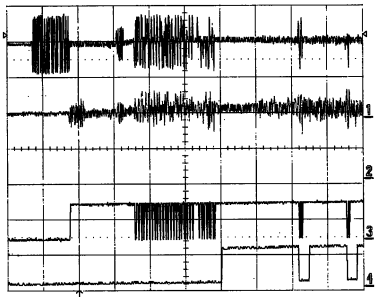


④ IC118-14 pin (TEO)
V: 1V/div. H: 0.5S/div.

⑤ IC113-1 pin (T+)
V: 2V/div. H: 0.5S/div.

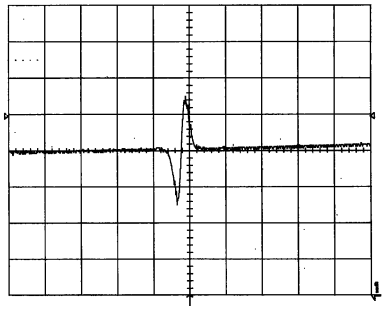
⑥ IC110-12 pin (SBOK)
V: 5V/div. H: 0.5S/div.

• Mode: Start up



③ IC118-16 pin (FEO)
V: 0.5V/div. H: 5mS/div.

• When pressing the remote control unit in the test mode (7+TM)



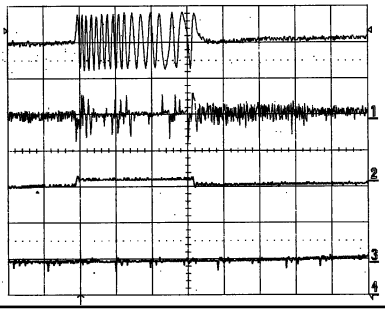
④ IC118-14 pin (TEO)
V: 1V/div. H: 2mS/div.

⑤ IC113-1 pin (T+)
V: 2V/div. H: 2mS/div.

⑦ IC119-33 pin (SLV)
V: 1V/div. H: 2mS/div.

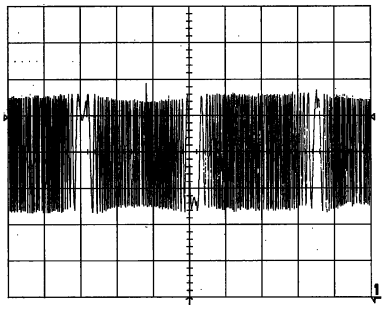
⑧ IC114-1 pin (HK)
V: 1V/div. H: 2mS/div.

• Mode: 16MF
16 track
Multi-jump
forward



④ IC118-14 pin (TEO)
V: 0.5V/div. H: 5mS/div.

Mode: T-OPEN



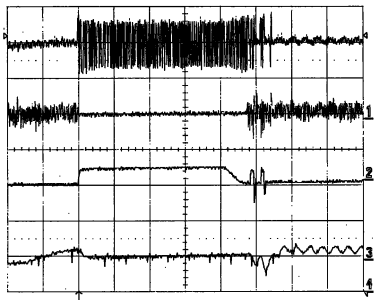
④ IC118-14 pin (TEO)
V: 1V/div. H: 0.2S/div.

⑤ IC113-1 pin (T+)
V: 2V/div. H: 0.2S/div.

⑦ IC119-33 pin (SLV)
V: 1V/div. H: 0.2S/div.

⑧ IC114-1 pin (HK)
V: 1V/div. H: 0.2S/div.

• Mode: FS-F
Track 1 to
16 search



■ Voltages

A 1/2 MAIN ASSY

IC110 (TC9495F-P)

Pin No	Voltage (V)	Pin No	Voltage (V)
1	5	61	0-5
2	5	62	5
3	0-5	63	0
4	0	64	5
5	0-5	65	0
6	0	66	0
7	0-5	67	0
8	0-5	68	5
9	0	69	5
10	0	70	5
11	0-5	71	0
12	0-5	72	0
13	0-5	73	0
14	5	74	0
15	0	75	5
16	0-5	76	5
17	0-5	77	0
18	0-5	78	2.2
19	0-5	79	2.3
20	0-5	80	5
21	0-5	81	0
22	0-5	82	0
23	5	83	0
24	0	84	0
25	4.2	85	0
26	2.1	86	0
27	5	87	5
28	0-5	88	5
29	2.1	89	5
30	2.1	90	0-5
31	2.1	91	0-5
32	2.1	92	0-5
33	2.1	93	0-5
34	2.1	94	5
35	1.6	95	0
36	0	96	0-5
37	2.1	97	0-5
38	2.1	98	5
39	5	99	5
40	2.6	100	0-5
41	3.3		
42	2.6		
43	2.1		
44	2.6		
45	2.1		
46	2.1		
47	1-4.2		
48	2.1		
49	2.1		
50	2.1		
51	0-5		
52	0-5		
53	0-5		
54	2.1		
55	2.3		
56	4.2		
57	5		
58	0-5		
59	5		
60	0-5		

IC112 (PD3442A8)

Pin No	Voltage (V)	Pin No	Voltage (V)
1	3.3	61	2.5
2	0-5	62	5
3	0-5	63	0-5
4	0-5	64	0
5	0-5	65	0
6	0-5	66	2.6
7	0-5	67	2.6
8	0-5	68	5
9	0-5	69	0-5
10	0-5	70	0
11	0	71	0-5
12	0-5	72	0-5
13	0-5	73	5
14	0-5	74	5
15	0-5	75	5
16	0-5	76	5
17	0-5	77	0
18	0-5	78	0
19	0-5	79	0
20	0-5	80	0-5
21	0-5	81	0-5
22	0	82	0-5
23	0-5	83	0-5
24	0	84	0-5
25	0	85	0-5
26	0	86	0-5
27	0	87	0-5
28	0	88	0-5
29	0	89	0-5
30	0	90	0-5
31	0	91	0-3.3
32	0	92	0-5
33	0	93	0
34	0	94	0-5
35	5	95	0-5
36	0-5	96	0-5
37	0-5	97	0-5
38	0-5	98	0-5
39	0-5	99	0-5
40	0-5	100	0-5
41	0-5		
42	0-5		
43	0-5		
44	0		
45	0-5		
46	0-3.3		
47	0		
48	0		
49	0-5		
50	0-5		
51	0-3.3		
52	0-5		
53	0-5		
54	0-5		
55	0-5		
56	0-5		
57	0		
58	0-5		
59	0-5		
60	0		

IC117 (XCA56367PV150)

Pin No	Voltage (V)	Pin No	Voltage (V)	Pin No	Voltage (V)
1	0-3.3	61	0	121	0-3.3
2	0-3.3	62	0	122	0-3.3
3	0	63	3.3	123	0-3.3
4	0-3.3	64	3.3	124	0-3.3
5	0-3.3	65	3.3	125	0-3.3
6	0-3.3	66	0	126	1.8
7	0-3.3	67	0-3.3	127	0
8	3.3	68	0-3.3	128	0-3.3
9	0	69	3.3	129	3.3
10	0-3.3	70	3.3	130	0
11	0-3.3	71	0	131	0-3.3
12	0-3.3	72	0-3.3	132	0-3.3
13	0-3.3	73	0-3.3	133	0-3.3
14	0-3.3	74	3.3	134	0-3.3
15	0-3.3	75	0	135	0-3.3
16	0-3.3	76	0-3.3	136	0-3.3
17	0-3.3	77	0-3.3	137	0-3.3
18	1.8	78	0-3.3	138	0-3.3
19	0	79	0-3.3	139	0
20	3.3	80	3.3	140	3.3
21	0	81	0	141	3.3
22	0	82	0	142	3.3
23	0	83	0	143	0-3.3
24	0	84	0	144	0-3.3
25	3.3	85	0		
26	0	86	3.3		
27	0-3.3	87	0		
28	0-3.3	88	0		
29	3.3	89	0		
30	3.3	90	0		
31	0-3.3	91	1.8		
32	0-3.3	92	0		
33	0-3.3	93	0		
34	0	94	0		
35	0	95	3.3		
36	0	96	0		
37	0	97	0		
38	3.3	98	0		
39	0	99	0		
40	0	100	0-3.3		
41	0	101	0-3.3		
42	0	102	0-3.3		
43	0	103	3.3		
44	0-3.3	104	0		
45	1.8	105	0-3.3		
46	0	106	0-3.3		
47	0	107	0-3.3		
48	0	108	0-3.3		
49	3.3	109	0-3.3		
50	0	110	0-3.3		
51	3.3	111	3.3		
52	3.3	112	0		
53	0	113	0-3.3		
54	0	114	0-3.3		
55	1.6	115	0-3.3		
56	1.8	116	0-3.3		
57	3.3	117	0-3.3		
58	0	118	0-3.3		
59	0	119	3.3		
60	0	120	0		

A 1/2 MAIN ASSY

IC118 (TA2153FN)

Pin No	Voltage (V)
1	5
2	0-5
3	2.1
4	2.2
5	2.2
6	2.1
7	2.4
8	0
9	0-5
10	0-5
11	1.9
12	4.2
13	2.1
14	2.1
15	2.6
16	2.1
17	2.1
18	0
19	2.1
20	2.7
21	3.3
22	2.6
23	1.9
24	2.1
25	2.1
26	5
27	2.1
28	1.7
29	0
30	2.1

IC119 (LA6565)

Pin No	Voltage (V)
1	0-5
2	0-5
3	7.2
4	3.3
5	3.3
6	3.3
7	3.3
8	2.5
9	4.2
10	0
11	3.7
12	3.7
13	3.9
14	3.5
15	7.2
16	2.2
17	2.1
18	2.2
19	2.1
20	2.1
21	2.1
22	1.9
23	2.1
24	2.1
25	1.1
26	1.8
27	1.1
28	2.1
29	0
30	2.1
31	2.1
32	2.1
33	2.1
34	3.4
35	5
36	5
37	0
38	0-5

A 2/2 MAIN ASSY

IC102 (PDC101A)

Pin No	Voltage (V)
1	3.3
2	0
3	0-3.3
4	0-3.3
5	0-3.3
6	0-3.3
7	0-3.3
8	0
9	3.3
10	0-3.3
11	0-3.3
12	0-3.3
13	0-3.3
14	3.3
15	0
16	3.3
17	0
18	0
19	0-3.3
20	0-3.3
21	0-3.3
22	0
23	0-3.3
24	3.3
25	0
26	0-3.3
27	0-3.3
28	0-3.3
29	0-3.3
30	0-3.3
31	0-3.3
32	0
33	0
34	0
35	3.3
36	3.3
37	1.1
38	0
39	0
40	0-3.3
41	0-3.3
42	0-3.3
43	0-3.3
44	0-3.3
45	0
46	0-3.3
47	0-3.3
48	0-3.3
49	0-3.3
50	0-3.3
51	0-3.3
52	0
53	3.3
54	0
55	3.3
56	0-3.3
57	0-3.3
58	0-3.3
59	0
60	0-3.3

Pin No	Voltage (V)
61	0
62	0
63	0-3.3
64	0-3.3
65	0-3.3
66	0-3.3
67	0-3.3
68	0
69	3.3
70	3.3
71	3.3
72	0
73	0
74	0-3.3
75	0-3.3
76	0-3.3
77	0-3.3
78	0-3.3
79	0-5
80	0-5
81	0
82	3.3
83	0-5
84	0-5
85	0-5
86	0
87	0
88	2
89	0
90	3.3
91	0-5
92	3.3
93	0-3.3
94	0-5
95	0-5
96	0-5
97	3.3
98	0
99	0-3.3
100	0-3.3
101	0-3.3
102	0-3.3
103	0-3.3
104	0
105	3.3
106	3.3
107	3.3
108	3.3
109	0
110	0
111	0
112	0-3.3
113	0-3.3
114	0-3.3
115	0-3.3
116	0-3.3
117	0-3.3
118	0-3.3
119	0
120	0-3.3

Pin No	Voltage (V)
121	0-3.3
122	0-3.3
123	0-3.3
124	0-3.3
125	3.3
126	0
127	3.3
128	0
129	0-3.3
130	1.3
131	0-3.3
132	0-3.3
133	0-3.3
134	0-3.3
135	0
136	0-3.3
137	0-3.3
138	0-3.3
139	0-3.3
140	0-3.3
141	0-3.3
142	0
143	0
144	3.3

IC104 (PE8001A)

Pin No	Voltage (V)
1	0-3.3
2	0-3.3
3	0-3.3
4	1.8
5	1.8
6	3.5
7	0
8	5
9	5
10	0
11	2.5
12	0
13	0-5
14	0
15	5
16	0-5
17	0
18	2.5
19	0
20	5
21	0-5
22	5
23	0
24	5
25	5
26	0-5
27	0-3.3
28	0-5

IC122 (M51957BFP)

Pin No	Voltage (V)
1	0
2	2.1
3	0
4	0
5	1.3
6	5
7	5
8	0

IC109 (K4S281632C-TC1H)

Pin No	Voltage (V)
1	3.3
2	0-3.3
3	3.3
4	0-3.3
5	0-3.3
6	0
7	0-3.3
8	0-3.3
9	3.3
10	0-3.3
11	0-3.3
12	0
13	0-3.3
14	3.3
15	0-3.3
16	0-3.3
17	0-3.3
18	0-3.3
19	0-3.3
20	0-3.3
21	0-3.3
22	0-3.3
23	0-3.3
24	0-3.3
25	0-3.3
26	0-3.3
27	3.3
28	0
29	0-3.3
30	0-3.3
31	0-3.3
32	0-3.3
33	0-3.3
34	0-3.3
35	0-3.3
36	0
37	3.3
38	1.5
39	0-3.3
40	0
41	0
42	0-3.3
43	3.3
44	0-3.3
45	0-3.3
46	0
47	0-3.3
48	0-3.3
49	3.3
50	0-3.3
51	0-3.3
52	0
53	0-3.3
54	0

F MFLB ASSY

IC501 (PD3848A)

Pin No	Voltage (V)	Pin No	Voltage (V)
1	0	61	0-42
2	42	62	0-42
3	0	63	0-42
4	0	64	0-42
5	0	65	0-42
6	0	66	0-42
7	0	67	0-42
8	0-42	68	0-42
9	0-42	69	0-42
10	0-42	70	0-42
11	0-42	71	0-42
12	0	72	0-42
13	0	73	0-42
14	0	74	0
15	0-42	75	0
16	0-42	76	0
17	0-42	77	0
18	0-42	78	0
19	0-42	79	42
20	0-42	80	0
21	0-42	81	0
22	0-42	82	0-42
23	0-42	83	0-42
24	0-42	84	0-42
25	0-42	85	0-42
26	0	86	0-42
27	0	87	0-42
28	0	88	0-42
29	0	89	0-42
30	0	90	0-42
31	42	91	0-42
32	0	92	0-42
33	0	93	0-42
34	0	94	0-42
35	0	95	0-42
36	0-5	96	0-42
37	0-5	97	0-42
38	0-5	98	0-42
39	0	99	0-42
40	0	100	0
41	5		
42	5		
43	0-5		
44	0		
45	0-5		
46	0		
47	0		
48	0		
49	0		
50	42		
51	0-42		
52	0-42		
53	0-42		
54	0-42		
55	0-42		
56	0-42		
57	0-42		
58	0-42		
59	0-42		
60	0-42		

IC502 (UPD16306B)

Pin No	Voltage (V)	Pin No	Voltage (V)
1	0	61	0-31
2	31	62	0-31
3	0	63	0-31
4	0	64	0-31
5	0	65	0-31
6	0	66	0-31
7	0	67	0-31
8	0-31	68	0-31
9	0-31	69	0-31
10	0-31	70	0-31
11	0-31	71	0-31
12	0-31	72	0-31
13	0-31	73	0-31
14	0	74	0
15	0	75	0
16	0	76	0
17	0	77	0
18	0	78	0
19	0	79	31
20	0	80	0
21	0	81	0
22	0	82	0-31
23	0	83	0-31
24	0	84	0-31
25	0	85	0-31
26	0	86	0-31
27	0	87	0-31
28	0	88	0-31
29	0	89	0-31
30	0	90	0-31
31	0	91	0-31
32	0	92	0-31
33	0	93	0-31
34	0	94	0-31
35	0	95	0-31
36	0-5	96	0-31
37	0-5	97	0-31
38	0-5	98	0-31
39	0	99	0-31
40	31	100	0
41	5		
42	5		
43	0-5		
44	0		
45	0-5		
46	0		
47	0		
48	0		
49	0		
50	31		
51	0-31		
52	0-31		
53	0-31		
54	0-31		
55	0-31		
56	0-31		
57	0-31		
58	0-31		
59	0-31		
60	0-31		

I JFLB ASSY

IC601 (UPD16306B)

Pin No	Voltage (V)	Pin No	Voltage (V)
1	0-5	61	0
2	2.5	62	0
3	0-5	63	0
4	0-5	64	0
5	0-5	65	0
6	0-5	66	0
7	0	67	0
8	0	68	0
9	0	69	0
10	0-5	70	0
11	0-5	71	0
12	0-5	72	0
13	0-5	73	0-5
14	0	74	0-5
15	0	75	0-5
16	0	76	0-5
17	0-5	77	0-5
18	0	78	0-5
19	0	79	0-5
20	0	80	0-5
21	2.1	81	0-5
22	2.4	82	0-5
23	5	83	0-5
24	0	84	0-5
25	0	85	0-5
26	0	86	0
27	0	87	0
28	0	88	0-5
29	0	89	0
30	0	90	0
31	0	91	0-5
32	0	92	0-5
33	5	93	0-5
34	5	94	0-5
35	0	95	0-5
36	5	96	0-5
37	0	97	0
38	0	98	5
39	0	99	0-5
40	0	100	0-5
41	0		
42	0		
43	0		
44	0		
45	0		
46	0		
47	0		
48	0		
49	0		
50	0		
51	0		
52	0		
53	0		
54	0		
55	0		
56	0		
57	5		
58	0		
59	0		
60	0		

A

B

C

D

E

F

1 2 3 4

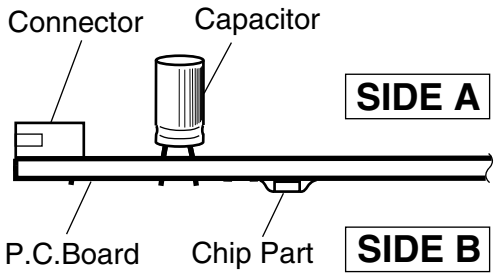
4. PCB CONNECTION DIAGRAM

NOTE FOR PCB DIAGRAMS :

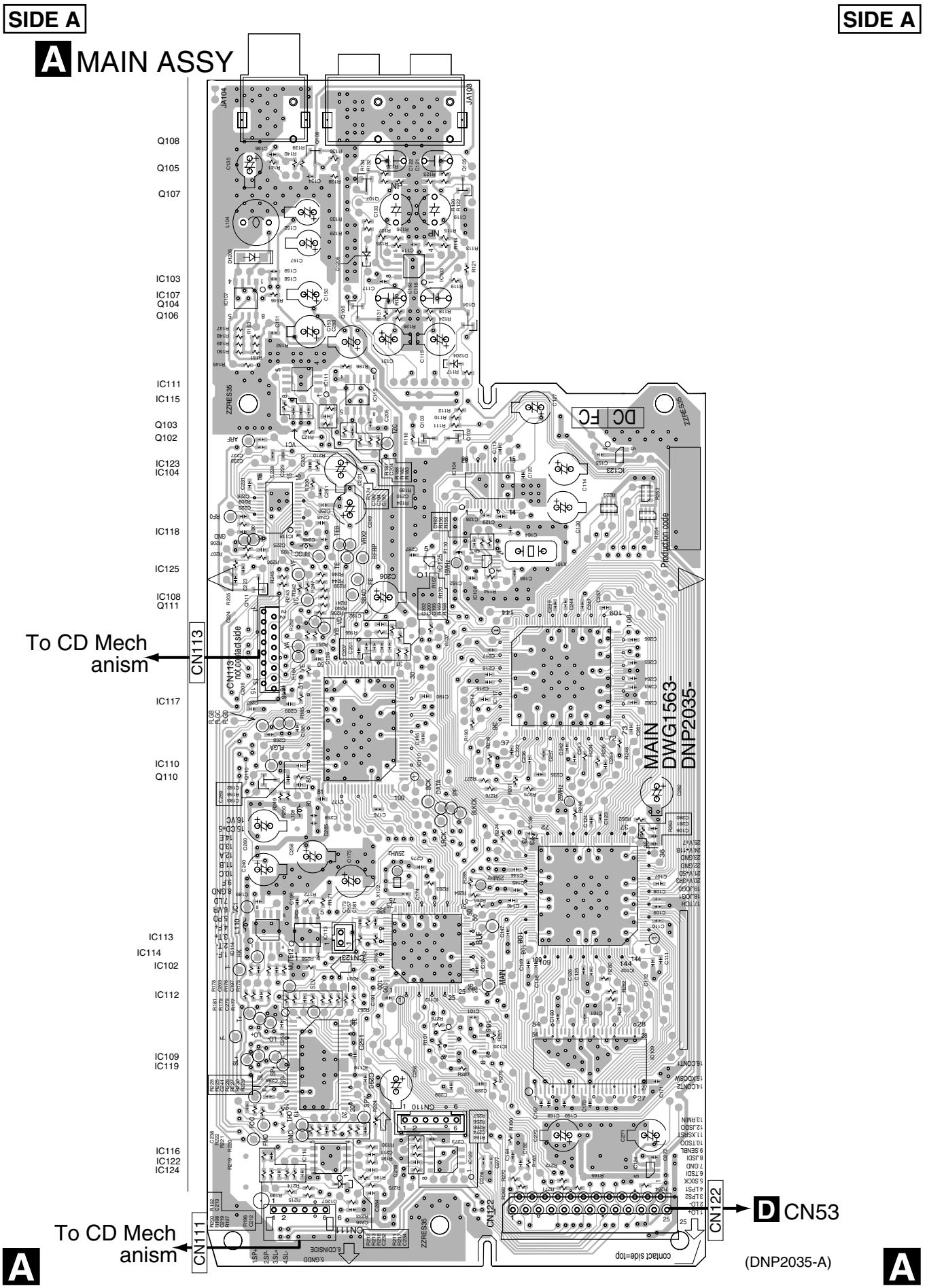
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol In PCB Diagrams	Symbol In Schematic Diagrams	Part Name
B C E	B C E B C E	Transistor
B C E	B C E B C E	Transistor with resistor
D G S	D G S D G S	Field effect transistor
		Resistor array
		3-terminal regulator

3. The parts mounted on this PCB include all necessary parts for several destinations.
   For further information for respective destinations, be sure to check with the schematic diagram.
4. View point of PCB diagrams.



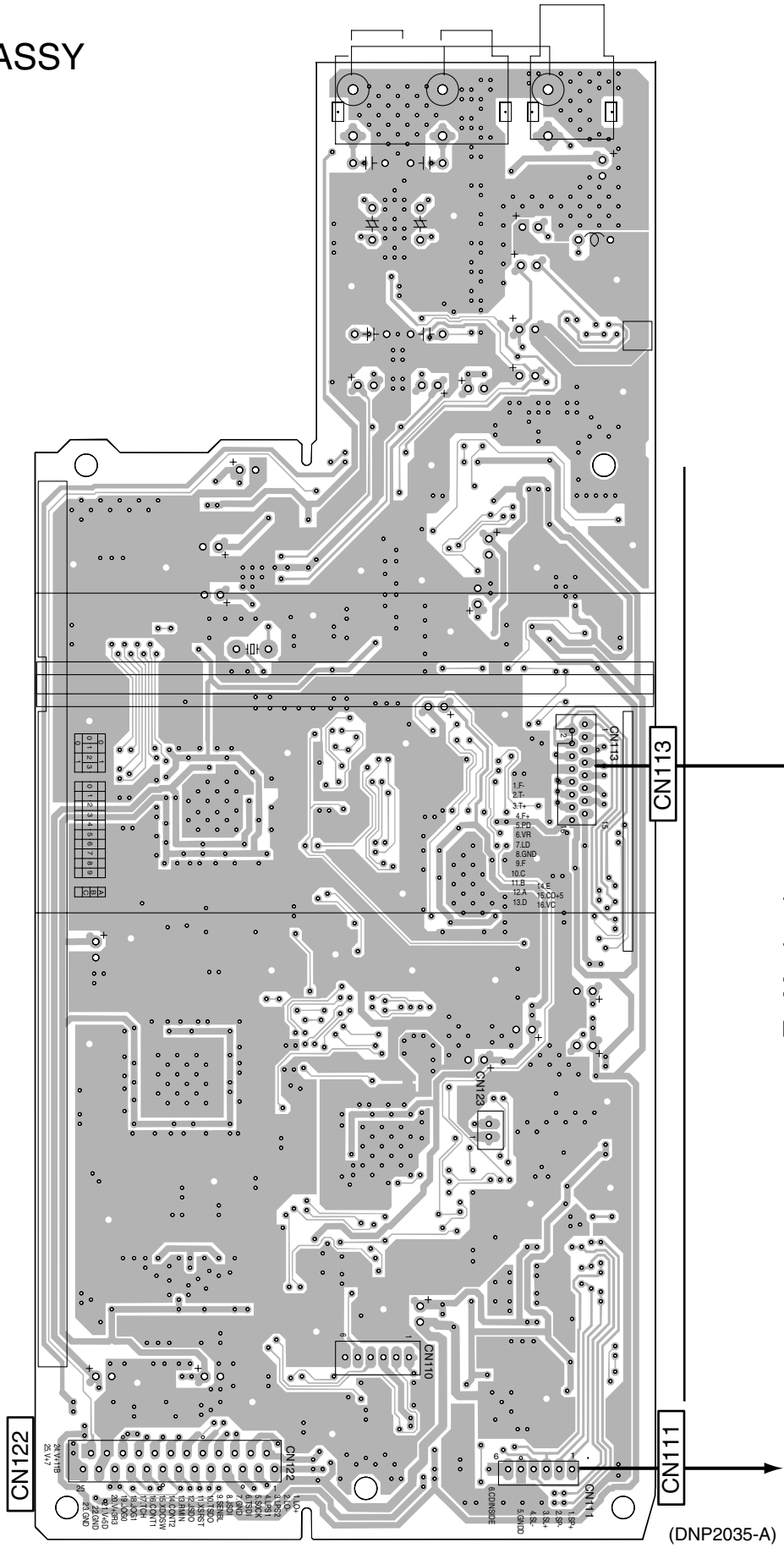
4.1 MAIN ASSY


SIDE A
SIDE A
A MAIN ASSY
To CD Mechanism
CN113
CN111
To CD Mechanism
D CN53
(DNP2035-A)
CN122
MAIN DWG1563-
DNP2035-
Production code
contact side=top
not contact side
JA104
JA108
IC103
IC107
Q104
Q106
IC111
IC115
Q103
Q102
IC123
IC104
IC118
IC125
IC108
Q111
IC117
IC110
Q110
IC113
IC114
IC102
IC112
IC109
IC119
IC116
IC122
IC124
Q108
Q105
Q107

SIDE B

SIDE B

A MAIN ASSY



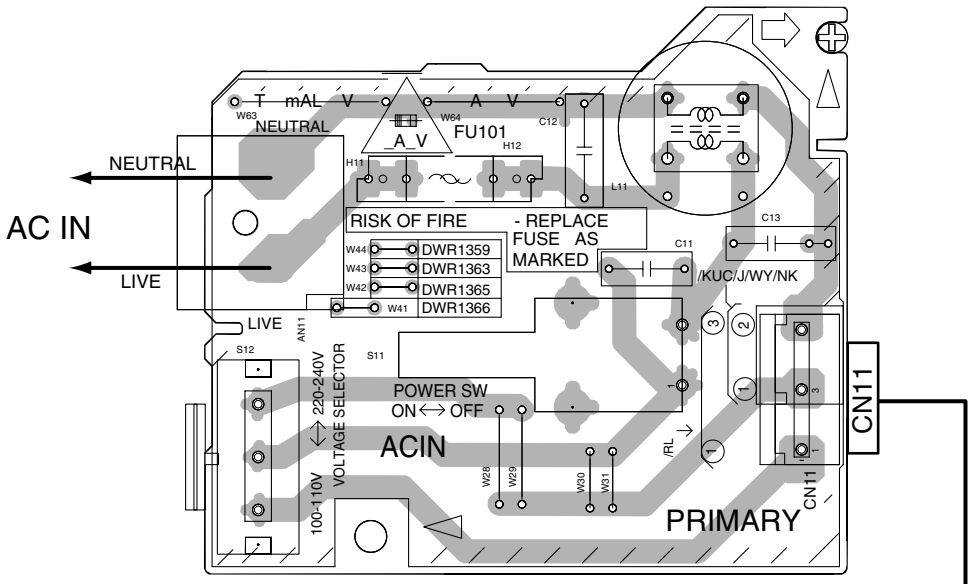
A

A

4.2 AC IN and TRNS ASSYS

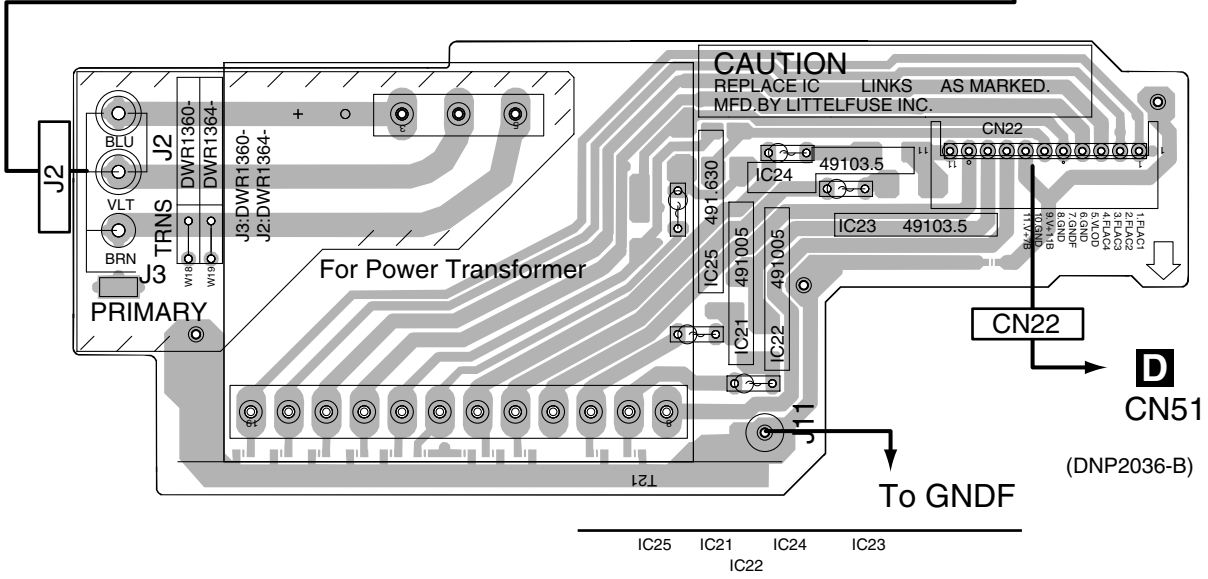
SIDE A **SIDE A**

B AC IN ASSY



(DNP2036-B)

C TRNS ASSY



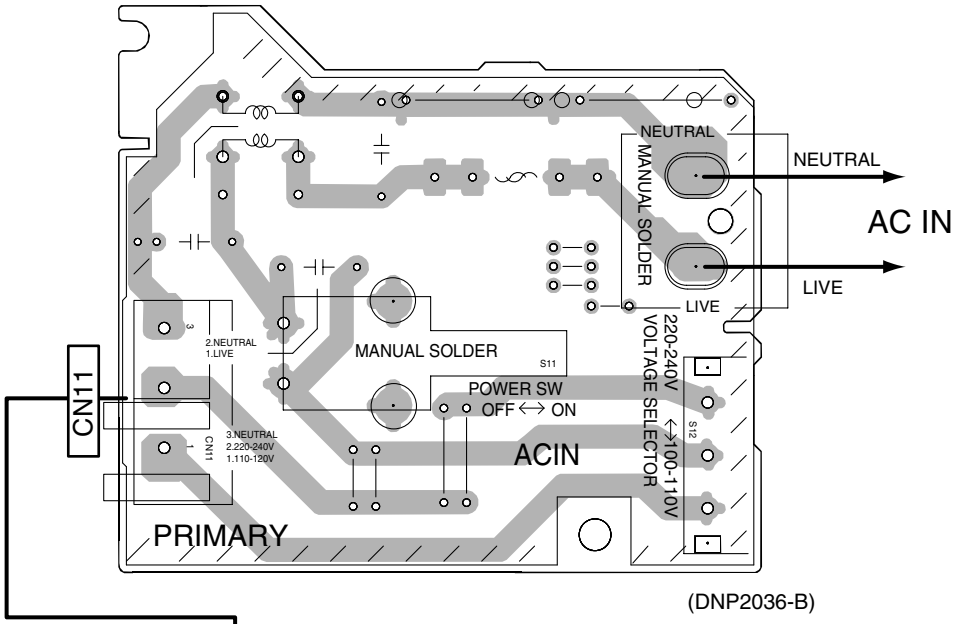
(DNP2036-B)

B C **B C**

SIDE B

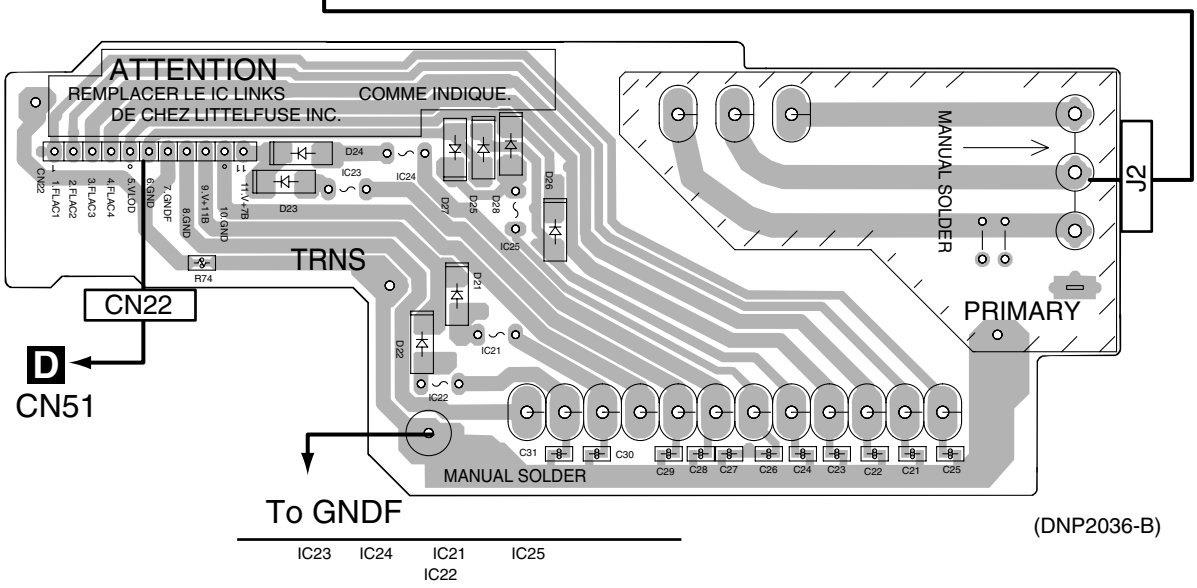
SIDE B

B AC IN ASSY



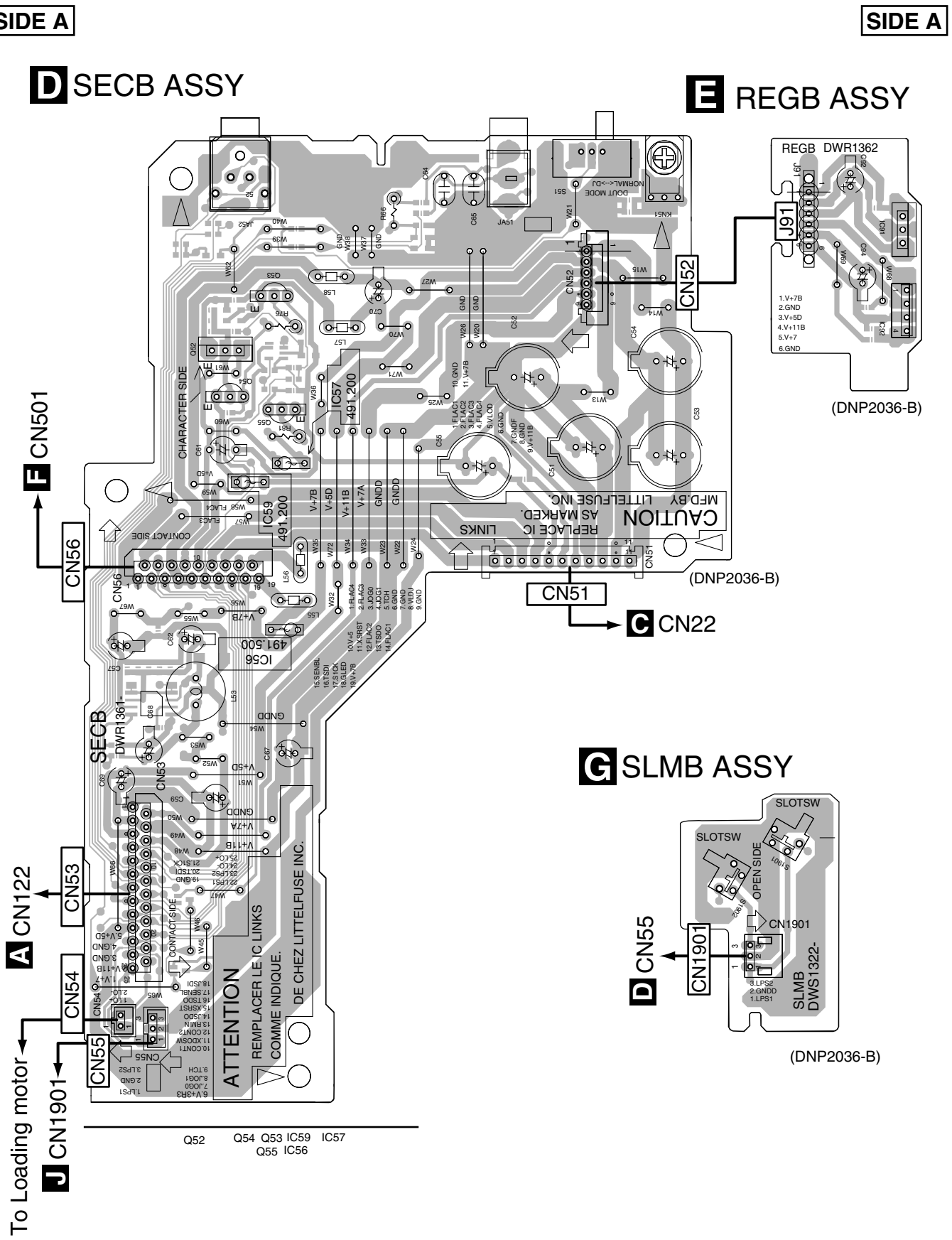
(DNP2036-B)

C TRNS ASSY



(DNP2036-B)

4.3 SECB, REGB and SLMB ASSYS

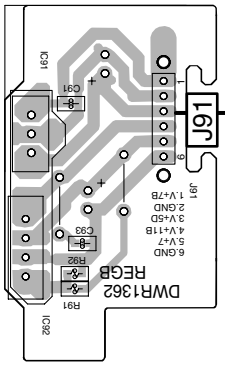


SIDE B

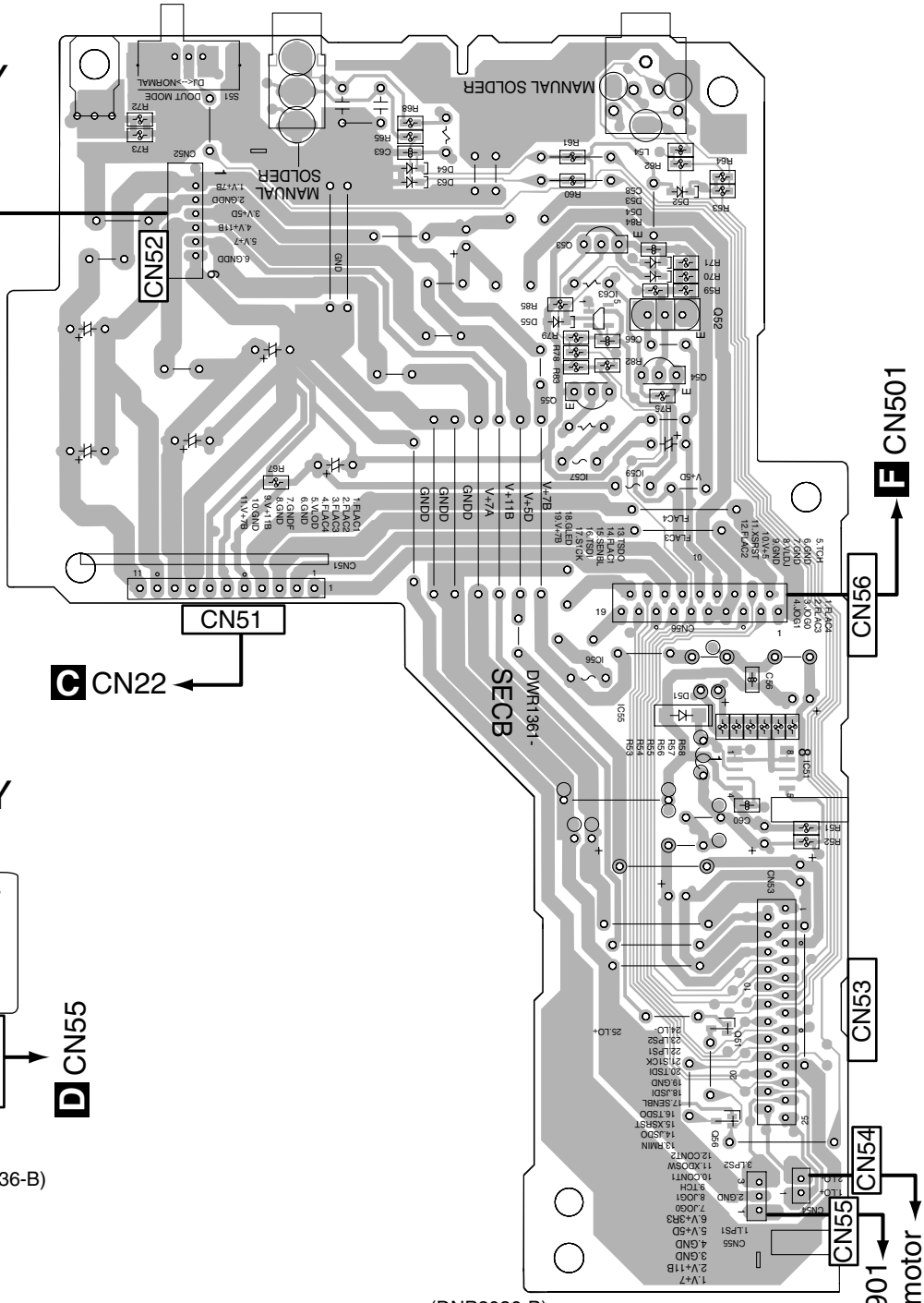
SIDE B

D SECB ASSY

E REGB ASSY



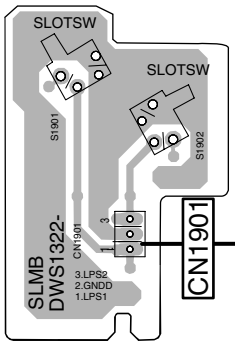
(DNP2036-B)



C CN22

F CN501

G SLMB ASSY



D CN55

(DNP2036-B)

(DNP2036-B)

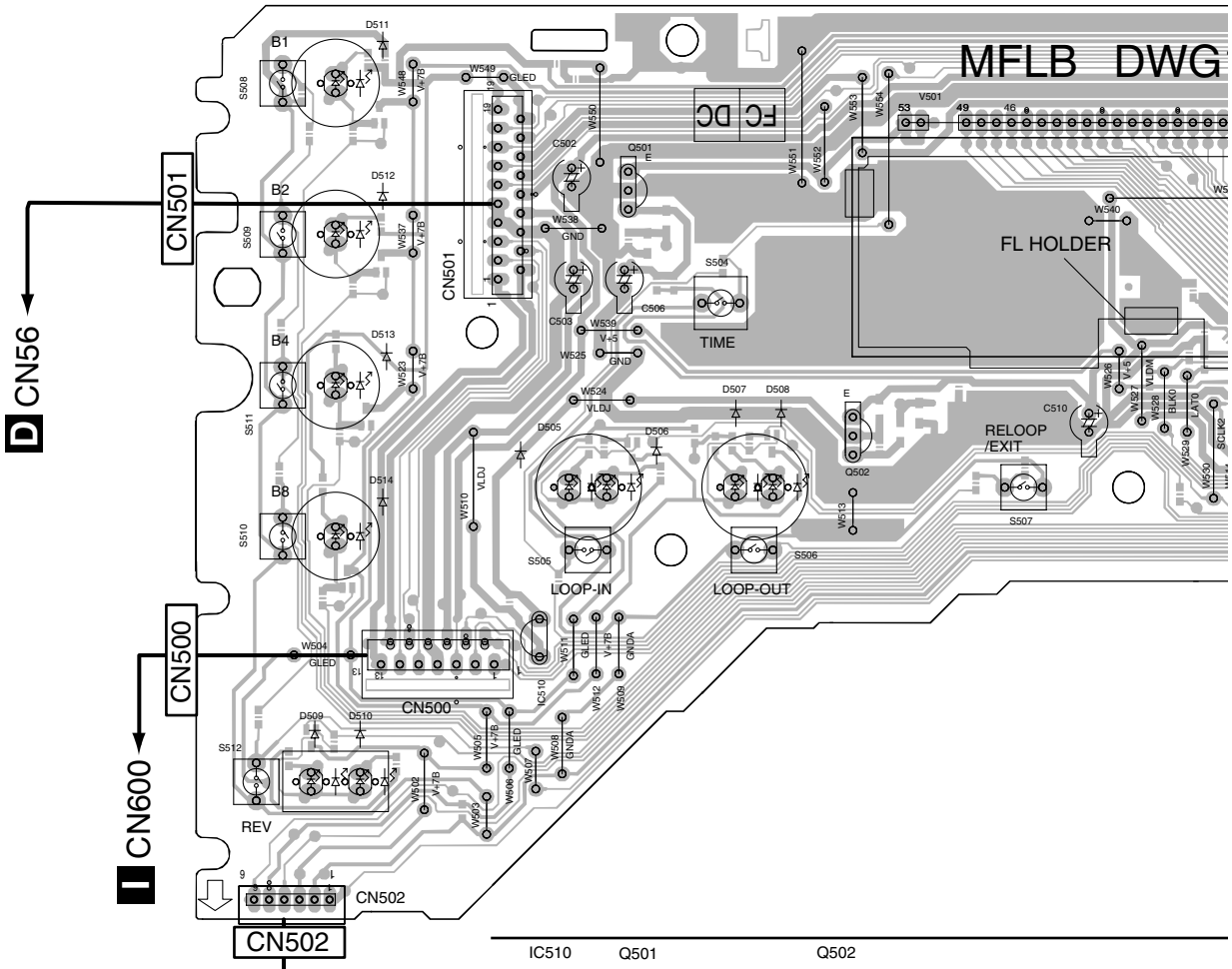
Q52 Q54 Q53 IC59 IC57
Q55 IC56

J CN1901
To Loading motor

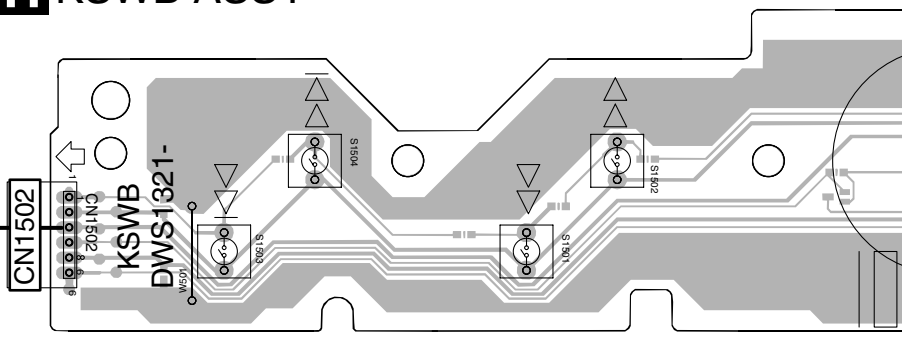
4.4 MFLB and KSWB ASSYS

SIDE A

F MFLB ASSY

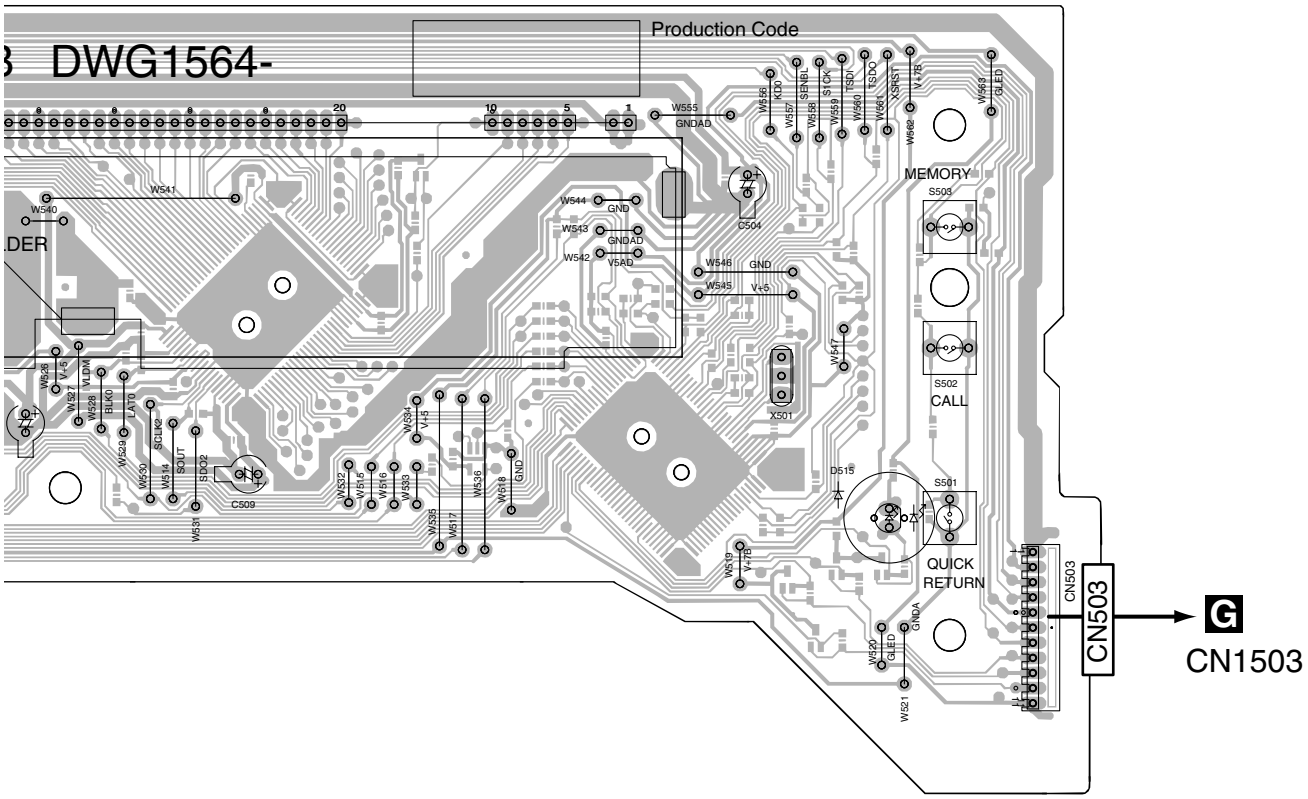


H KSWB ASSY

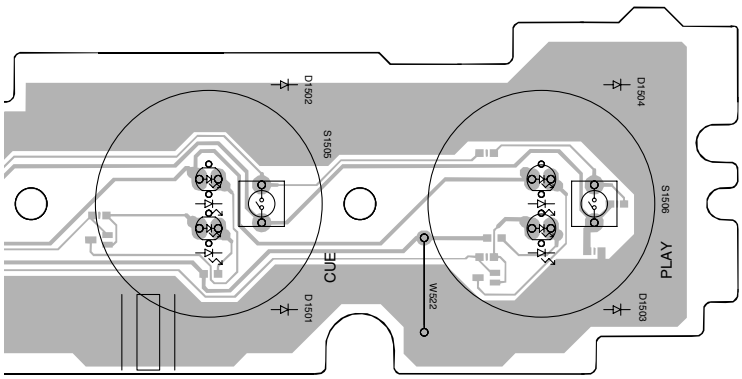


F H

SIDE A



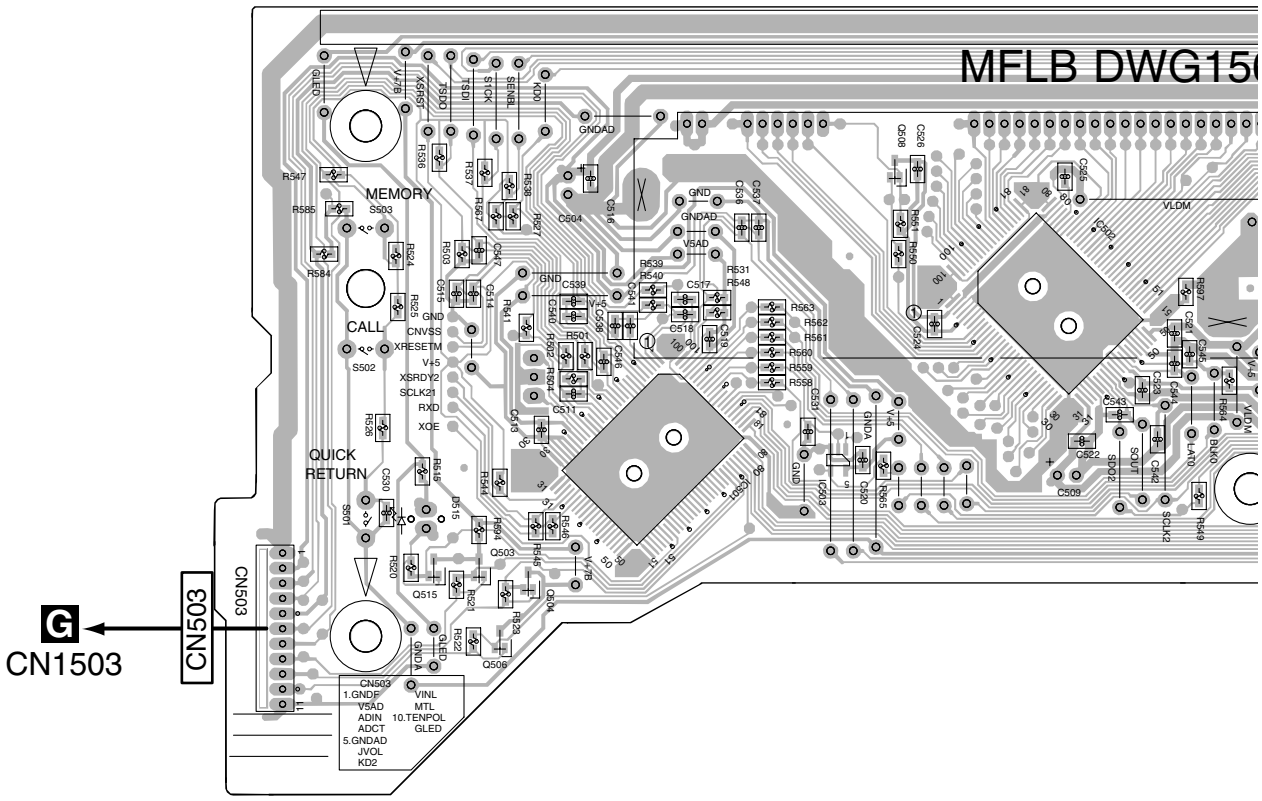
(DNP2036-B)



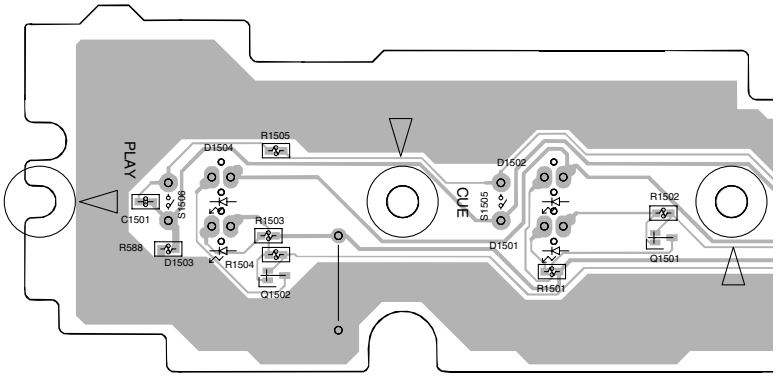
(DNP2036-B)

SIDE B

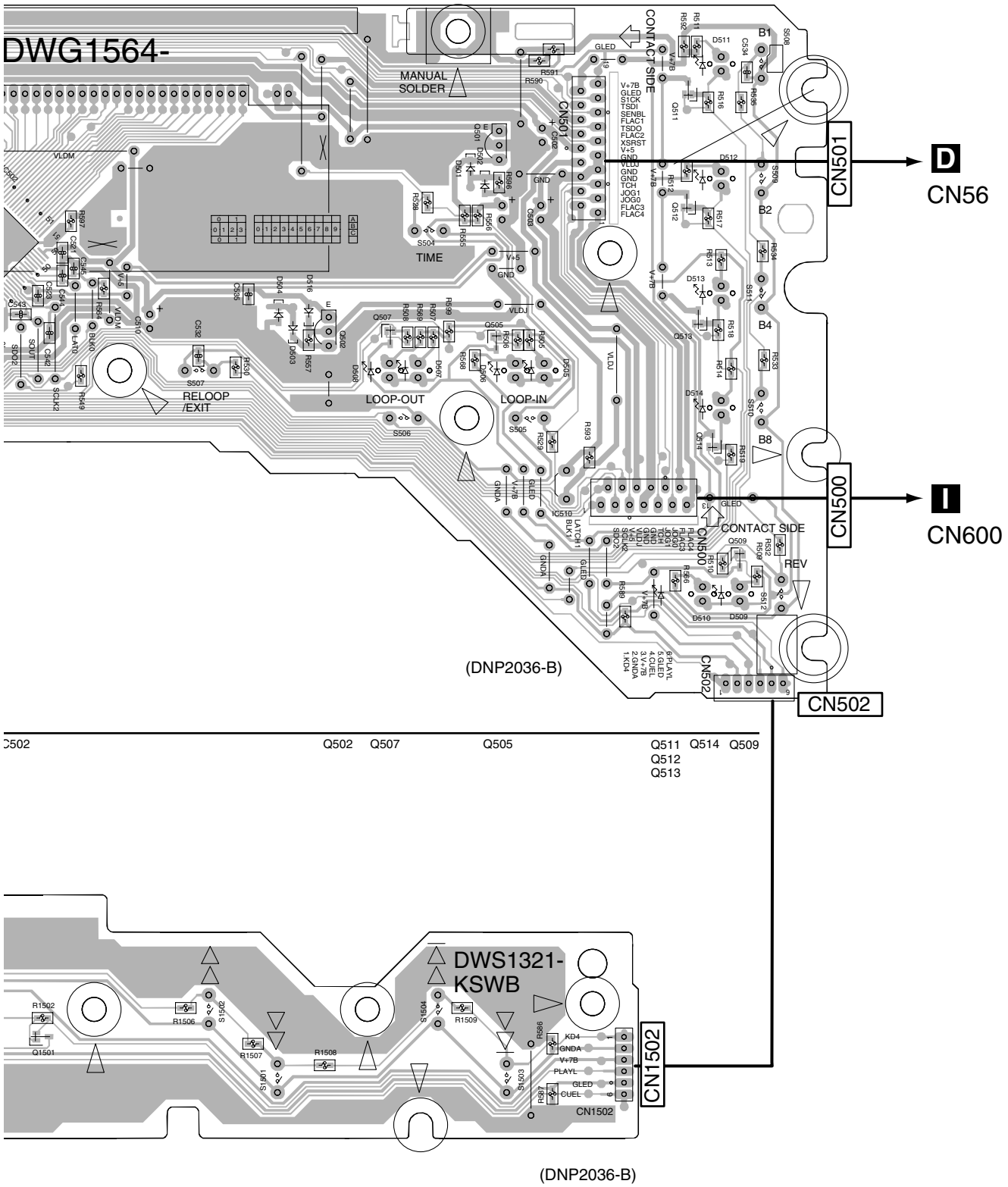
F MFLB ASSY



H KSWB ASSY



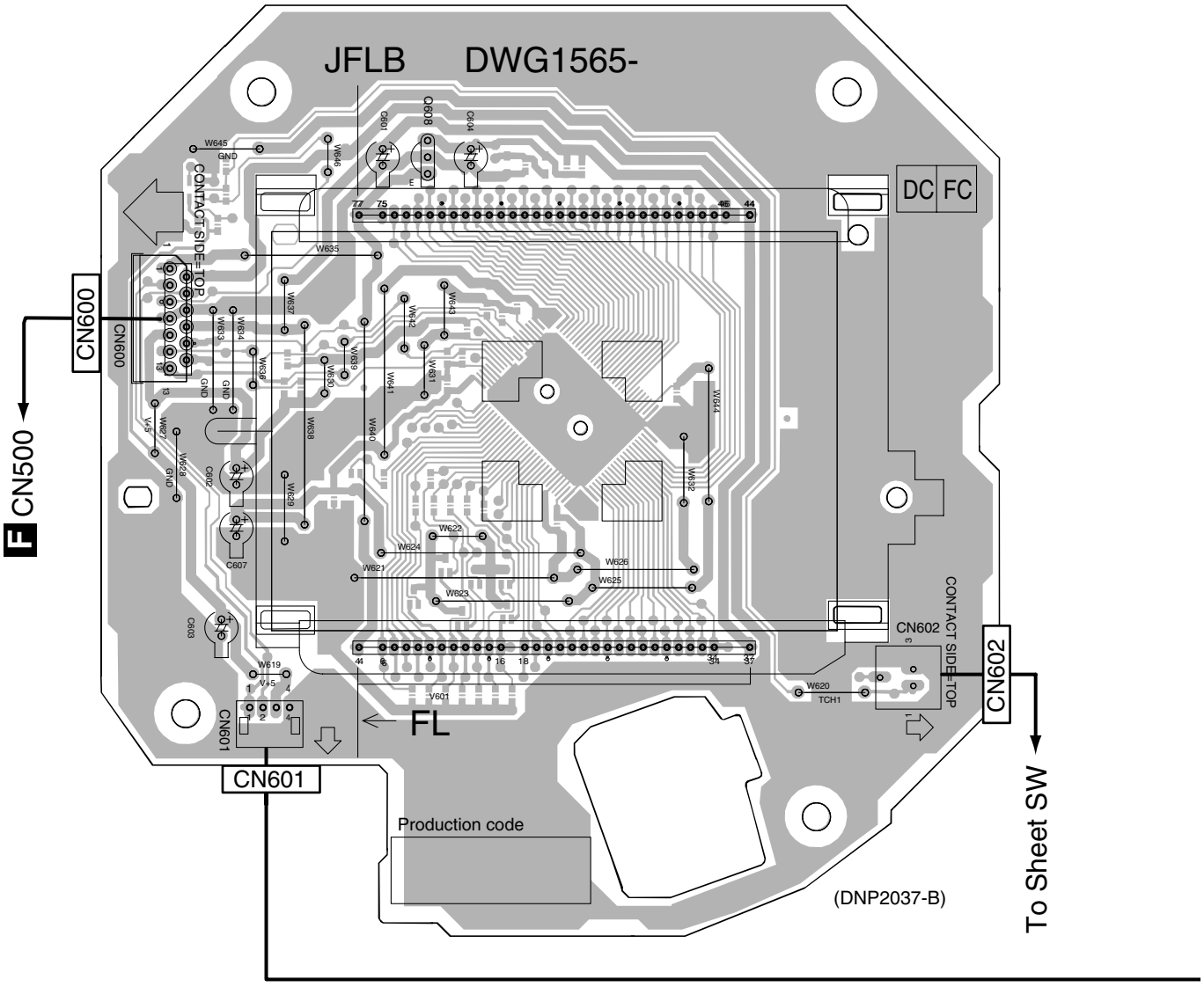
SIDE B


DWG1564-
MANUAL SOLDER
CONTACT SIDE
CN501
CN501
D
CN56
B1
B2
B4
B8
TIME
RELOOP /EXIT
LOOP-OUT
LOOP-IN
CN500
CN500
I
CN600
CONTACT SIDE
REV
CN502
CN502
(DNP2036-B)
C502
Q502
Q507
Q505
Q511
Q512
Q513
Q514
Q509
DWS1321-KSWB
CN1502
CN1502
(DNP2036-B)

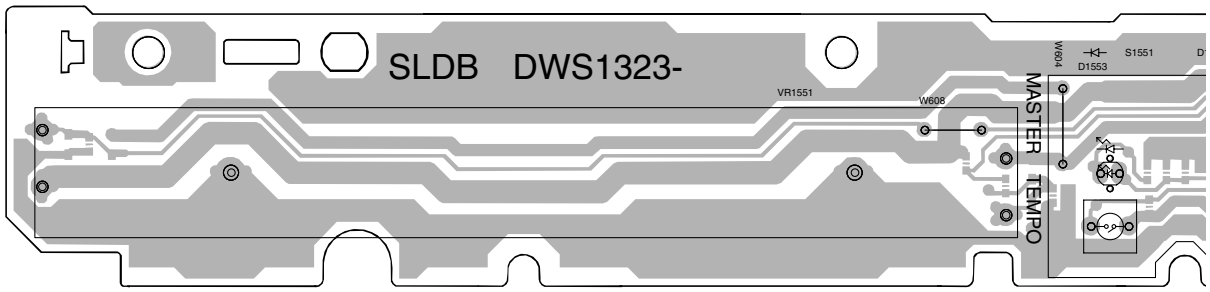
4.5 SLDB, JOGB and JFLB ASSYS

SIDE A

I JFLB ASSY



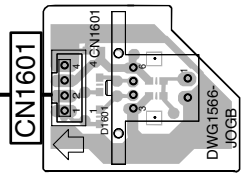
J SLDB ASSY



J I

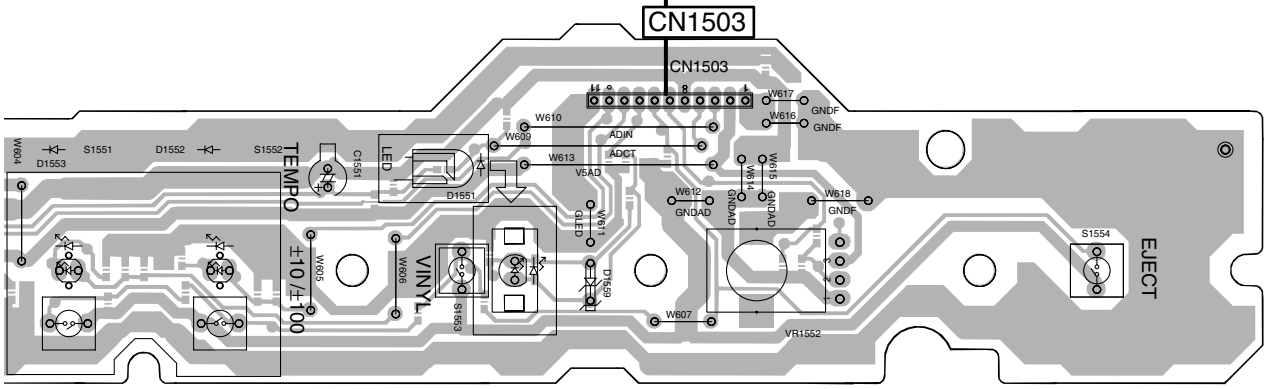
SIDE A

K JOGB ASSY



(DNP2037-B)

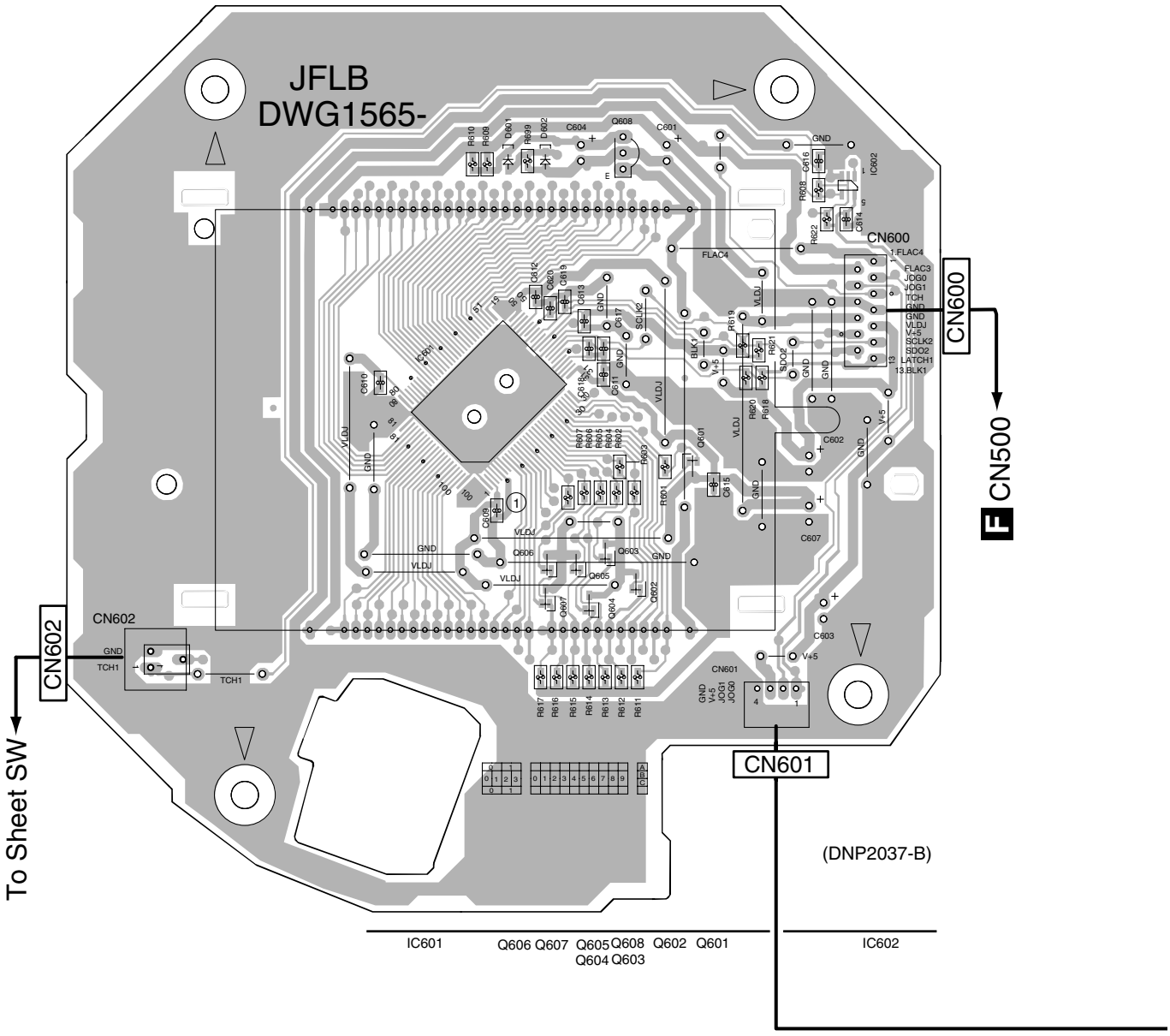
F CN503



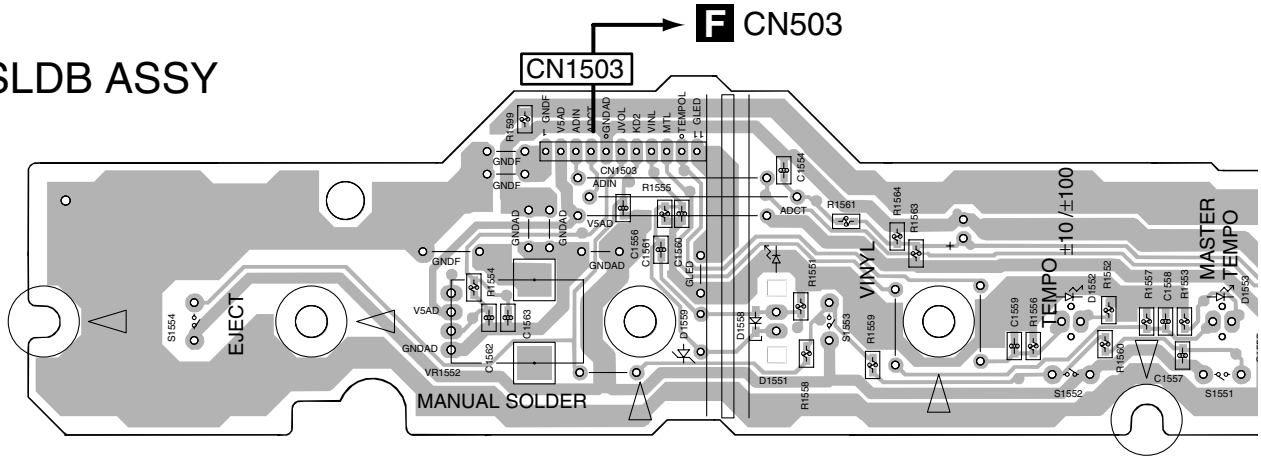
(DNP2037-B)

SIDE B

I JFLB ASSY



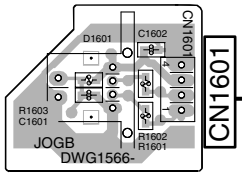
J SLDB ASSY



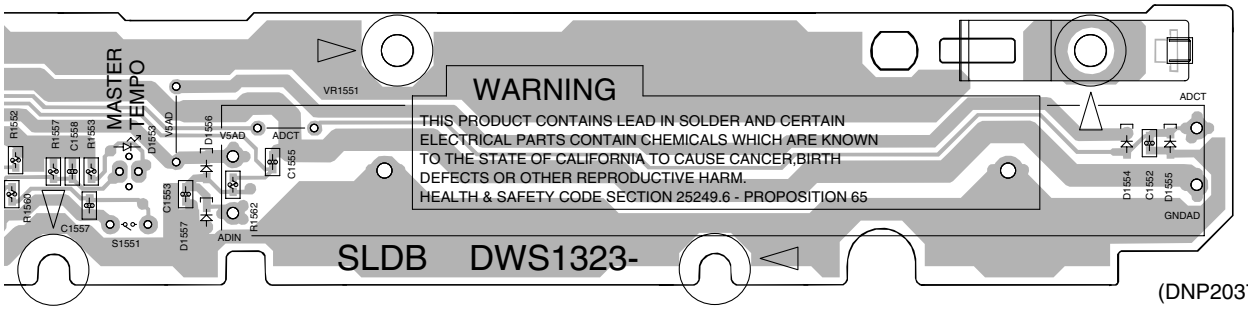
J I

SIDE B

K JOGB ASSY



(DNP2037-B)


MASTER TEMPO
VR1551
WARNING
THIS PRODUCT CONTAINS LEAD IN SOLDER AND CERTAIN ELECTRICAL PARTS CONTAIN CHEMICALS WHICH ARE KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER,BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.
HEALTH & SAFETY CODE SECTION 25249.6 - PROPOSITION 65
ADCT
GNDAD
SLDB DWS1323-

(DNP2037-B)

5. PCB PARTS LIST

NOTES: ● *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
● *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
● *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 Ω	→ *56 x 10[1]* →	*561*	*RD1/4PU 5 6 1 J*
47k Ω	→ *47 x 10[3]* →	*473*	*RD1/4PU 4 7 3 J*
0.5 Ω	→ *R50*		*RN2H R 5 0 K*
1 Ω	→ *1R0*		*RS1P 1 R 0 K*

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω	→ *562 x 10[1]* →	*5621*	*RN1/4PC 5 6 2 1 F*

LIST OF ASSEMBLIES

Mark	No.	Description	Part No.
	1	MAIN Assy	DWG1563
NSP	1	DISP Assy (WYXJ)	DWM2147
NSP	1	DISP Assy (KUCXJ)	DWM2149
	2	MFLB Assy	DWG1564
	2	SECB Assy	DWR1361
	2	REGB Assy	DWR1362
	2	TRNS Assy	DWR1364
	2	AC IN Assy (KUCXJ)	DWR1366
	2	AC IN Assy (WYXJ)	DWR1363
	2	KSWB Assy	DWS1321
	2	SLMB Assy	DWS1322
NSP	1	SUB Assy	DWM2146
	2	JFLB Assy	DWG1565
	2	JOGB Assy	DWG1566
	2	SLDB Assy	DWS1323

A MAIN ASSY

SEMICONDUCTORS

Mark	No.	Description	Part No.
	IC113		BR24C64F
	IC109		K4S281632C-TC1H
	IC119		LA6562
	IC122		M51957BFP
	IC111, IC114, IC116		NJM2100M
	IC107		NJM2374AM
	IC123		NJM2870F05
	IC124		NJM2870F18
	IC115		NJM2903M
	IC103		NJM4558MD
	IC112		PD3442B8
	IC102		PDC101A
	IC104		PE8001A
	IC118		TA2153FN
	IC120		TC74VHC257FT
	IC125		TC7S04FU
	IC108		TC7WU04FU
	IC110		TC9495F-P
	IC117		XCA56367PV150
	Q110		2SA1036K
	Q108		2SC2412K
	Q104-Q107		2SD2114K
	Q102		DTA124EUA
	Q111		DTC114TK
	Q103		DTC124EUA
	D1204, D1205		1SS355
	D1206		EC10QS04
	D1207		HZU2.0B

COILS AND FILTERS

Mark	No.	Description	Part No.
	L104 (470uH)		DTL1083
	F110 (Ferrite core)		DTL1090
	L108, L109 (Chip beads)		PTL1014

CAPACITORS

Mark	No.	Description	Part No.
	C224, C230		CCSRCH100D50
	C232		CCSRCH101J50
	C164, C165		CCSRCH120J50
	C213, C219		CCSRCH180J50
	C158		CCSRCH181J50
	C159, C223		CCSRCH220J50
	C238		CCSRCH270J50
	C192, C251		CCSRCH470J50
	C210		CCSRCH471J50
	C220		CCSRCH680J50
	C150, C152, C157		CEAT101M10
	C127, C175, C206, C221, C240		CEJQ101M10
	C249, C256, C258, C260		CEJQ101M10
	C270, C271, C282, C283		CEJQ101M10
	C153		CEJQ330M10
	C114, C115, C130, C131, C135		CEJQ470M16
	C119, C133		CEJQNP220M16
	C163		CKSRYB102K50
	C101, C106-C113, C117, C118		CKSRYB103K50
	C120, C123-C126, C128, C129		CKSRYB103K50
	C134, C138, C144-C149, C151		CKSRYB103K50
	C160-C162, C167-C171		CKSRYB103K50
	C173, C174, C181, C183, C184		CKSRYB103K50
	C186, C187, C189, C194, C198		CKSRYB103K50
	C200, C205, C211, C212		CKSRYB103K50
	C214-C218, C222, C226, C227		CKSRYB103K50
	C233, C234, C236, C237, C239		CKSRYB103K50
	C242-C244, C246, C247, C254		CKSRYB103K50
	C257, C259, C261-C266, C272		CKSRYB103K50
	C274, C275, C284		CKSRYB103K50
	C136, C155, C176, C177, C182		CKSRYB104K25
	C185, C188, C190, C191, C196		CKSRYB104K25
	C207, C231, C245, C248, C250		CKSRYB104K25

Mark No.	Description	Part No.
	C253, C267-C269, C273, C280	CKSRYB104K25
	C285-C287, C291	CKSRYB104K25
	C195	CKSRYB153K50
	C197, C203, C228, C229, C279	CKSRYB224K16
	C204	CKSRYB333K16
	C202	CKSRYB472K50
	C208, C209	CKSRYB473K50
	C241	CKSRYB562K50
	C235	CKSRYB682K50
	C116, C121, C122, C132	CQMA152J50
RESISTORS		
	R223, R253, R254	RAB4C223J
	R195	RS1/16S1502F
	R136	RS1/16S1801F
	R115, R127	RS1/16S2202D
	R145	RS1/16S2202F
	R214, R215, R257	RS1/16S3301F
	R138	RS1/16S3901F
	R198, R200	RS1/16S3902F
	R146, R196, R256	RS1/16S4701F
	R199	RS1/16S5600F
	R192, R197	RS1/16S8202F
	Other Resistors	RS1/16S###J
OTHERS		
	X101 CRYSTAL RES. (16.93MHz)	ASS1073
	CN123 KR CONNECT POST 2P	B2B-PH-K-S
	CN110 KR CONNECT POST 6P	B6B-PH-K-S
	JA104 1P PINJACK	DKB1056
	X102 CERAMIC RES.(24.57MHz)	DSS1139
	CN122 CONNECTOR 25P	HLEM25R-1
	CN111 CONNECTOR 6P	S6B-PH-K-S
	CN113 FFC CONNECTOR	SLW16S-1C7
	JA103 2P JACK	VKB1050

F MFLB ASSY

Mark No.	Description	Part No.
SEMICONDUCTORS		
	IC501	PD5848A
	IC503	TC7S04F
	IC502	UPD16306B
	Q501	2SB1237X
	Q503, Q504, Q505	2SC4081
	Q506, Q507	2SC4081
	Q508, Q509	2SC4081
	Q511, Q512, Q513	2SC4081
	Q514, Q515	2SC4081
	Q502	2SD1858X
	D516	1SS355
	D509, D510	SLI-343URCW
	D505, D506, D507	SLI-343YCW
	D508, D511	SLI-343YCW
	D512, D513, D514	SLI-343YCW
	D515	TLGE68TG
	D503	UDZS13B
	D504	UDZS18B
	D501	UDZS6.8B
COILS AND FILTERS		
	X501 CERAMIC RES.(4MHz)	DSS1131
SWITCHES AND RELAYS		
	S501, S502, S503, S504	ASG7013
	S505, S506, S507, S508	DSG1063
	S509, S510, S511, S512	DSG1063
CAPACITORS		
	C536, C537	CCSRCH102J50
	C542	CCSRCH151J50
	C531, C543, C544, C545	CCSRCH271J50
	C506, C510	CEJQ100M50
	C502, C504	CEJQ470M16
	C503	CEJQ1R0M50
	C509	CEJQ4R7M50
	C530, C532, C534, C538, C539	CKSRYB102K50
	C540	CKSRYB102K50
	C511, C513, C514, C515, C516	CKSRYB103K50
	C520, C521, C522, C523, C524	CKSRYB103K50
	C525, C526, C535	CKSRYB103K50
	C517, C518, C519	CKSRYB105K6R3
RESISTORS		
	Other Resistors	RS1/16S###J
OTHERS		
	CN500 13P CONNECTOR	52492-1320
	CN501 19P CONNECTOR	52492-1920
	V501 FL DISPLAY	DEL1048
	FL HOLDER	DNF1674
	CN502 6P SOCKET	KP200IB6L
	CN503 11P CONNECTOR	VKN1363

D SECB ASSY

Mark No.	Description	Part No.
SEMICONDUCTORS		
⚠	IC56	AEK7005
⚠	IC57, IC59	AEK7023
	IC51	NJM2374AM
	IC63	TC7S04F
	Q54	2SB1238X
	Q53, Q55	2SD1859X
⚠	Q52	2SD2012
	Q51	DTA143EUA
	Q56	DTC124EUA
	D52	1SS355
	D51	EC10QS04
	D63, D64	UDZS10B
	D53	UDZS20B
	D54	UDZS22B
	D55	UDZS5.1B
COILS AND FILTERS		
	L53 (82uH)	DTL1104
	L55, L56, L57, L58 (Ferrite beads)	VTH1020
	L54 (Chip beads)	VTL1084
SWITCHES AND RELAYS		
	S51	DSH1025
CAPACITORS		
	C60	CCSRCH331J50
	C57, C59, C62, C67, C68	CEAT101M10
	C69, C70	CEAT101M10
	C61	CEAT1R0M50
	C55	CEAT221M2A
	C51, C52	CEAT222M25

Mark No.	Description	Part No.
C53, C54		CEAT332M16
C58		CKSRYB103K50
C56, C63, C66		CKSRYB104K25
RESISTORS		
R76		RD1/2VM103J
R66		RD1/2VM271J
R81		RD1/2VM470J
R51		RS1/16S2002D
R52		RS1/16S3302D
Other Resistors		RS1/16S###J
OTHERS		
CN52 6P JUMPER CONN.		52147-0610
52 MINI JACK		AKN7003
CN54 KR CONN. POST		B2B-PH-K-S
CN55 3P CONN. POST		B3B-PH-K-M
CN56 19P FFC CONN.		HLEM19S-1
CN53 25P CONNECTOR		HLEM25S-1
CN51 11P SOCKET		KP250NA11
JA51 REMOCON JACK		PKN1004
PCB BINDER		VEF1040
KN51 EARTH METAL FITT.		VNF1084

E REGB ASSY

SEMICONDUCTORS		
⚠ IC91		BA05T
⚠ IC92		PQ15RW11
CAPACITORS		
C92		CEAT101M10
C94		CEAT470M16
C91, C93		CKSRYB103K50
RESISTORS		
R92		RS1/16S2201D
R91		RS1/16S3901D
OTHERS		
91 6P CABLE HOLDER		51048-0600
J91 6P JUMPER WIRE		D20PDY0610E
REGURATOR PLATE		DNH2533

C TRANS ASSY

SEMICONDUCTORS		
⚠ IC25		AEK7006
⚠ IC23, IC24		AEK7017
⚠ IC21, IC22		AEK7019
⚠ D25, D26, D27, D28		1SR154-400
⚠ D21, D22, D23, D24		RB060L-40
CAPACITORS		
C21, C22, C23, C24, C25		CKSRYB473K50
C26, C27, C28, C29		CKSRYB473K50
C30, C31		CKSRYB473K50
RESISTORS		
Other Resistors		RS1/16S###J
OTHERS		
⚠ J2 CONNECTOR ASSY		DKP3621
CN22 11P CONNECTOR		S11B-XH-A-1
PCB BINDER		VEF1040

B AC IN ASSY(for KUCXJ type)

Mark No.	Description	Part No.
COILS AND FILTERS		
⚠ L11		VTL-004
SWITCHES AND RELAYS		
⚠ S11		DSA1029
CAPACITORS		
⚠ C12, C13 (Film capa.)		ACE7027
⚠ C11 (10000P/AC250V)		ACG7033
OTHERS		
⚠ AN11 POWER SOCKET		AKP7032
H11, H12 FUSE CLIP		AKR1004
⚠ CN11 2P-VH CONNECTOR		B2P3-VH

B AC IN ASSY (for WYXJ type)

COILS AND FILTERS		
⚠ L11		VTL-004
SWITCHES AND RELAYS		
⚠ S11		DSA1029
CAPACITORS		
⚠ C12, C13 (Film capa.)		ACE7027
⚠ C11 (10000P/AC250V)		ACG7033
OTHERS		
H11, H12 FUSE CLIP		AKR1004
⚠ CN11 2P-VH CONNECTOR		B2P3-VH
⚠ AN11 POWER SOCKET		BKP1046

H KSWB ASSY

SEMICONDUCTORS		
Q1501, Q1502		2SC4081
D1501, D1502		SLI-343YCW
D1503, D1504		TLGE68TG
SWITCHES AND RELAYS		
S1501, S1502, S1503, S1504		ASG7013
S1505, S1506		DSG1063
CAPACITORS		
C1501		CKSRYB102K50
RESISTORS		
Other Resistors		RS1/16S###J
OTHERS		
CN1502 6P PLUG		AKM7030

I JFLB ASSY

SEMICONDUCTORS		
IC601		UPD16306B
Q608		2SB1237X
Q601, Q602, Q603, Q604, Q605		2SC4081
Q606, Q607		2SC4081
D601		UDZS9.1B
CAPACITORS		
C617		CCSRCH151J50
C618, C619, C620		CCSRCH271J50
C604, C607		CEJQ100M50
C601		CEJQ1R0M50
C602, C603		CEJQ470M16
C616		CKSRYB102K50

Mark No.	Description	Part No.
	C609, C610, C611, C612, C613	CKSRYB103K50
	C615	CKSRYB103K50

RESISTORS

	Other Resistors	RS1/16S###J

OTHERS

	CN602 CONNECTOR	5597-03APB
	V601 FL DISPLAY	DEL1049
	FL HOLDER	DNK3956
	CN600 13P CONNECTOR	HLEM13R-1
	CN601 KR CONNECTOR	S4B-PH-K-S

G SLMB ASSY

SWITCHES AND RELAYS

	S1901, S1902	DSG1017

OTHERS

	CN1901 KR CONNECTOR	S3B-PH-K-M

K JOGB ASSY

SEMICONDUCTORS

	D1601	GP1A038RBK

CAPACITORS

	C1601, C1602	CKSRYB103K50

RESISTORS

	Other Resistors	RS1/16S###J

OTHERS

	CN1601 KR CONNECTOR	B4B-PH-K-S

J SLDB ASSY

SEMICONDUCTORS

	DD1554, DD1555, D1556, D1557	1SS355
	D1551	E1L4E-7B1A
	D1553	SLI-343URCW
	D1552	SLI-343YCW

SWITCHES AND RELAYS

	S1551, S1552, S1553, S1554	ASG7013

CAPACITORS

	C1557	CCSRCH101J50
	C1556	CCSRCH102J50
	C1551	CEJQ100M50
	C1552, C1553	CKSRYB102K50
	C1558, C1559, C1560, C1561	CKSRYB103K50

RESISTORS

	R1563, R1564	RS1/16S2201F
	VR1552 10kB	DCS1062
	VR1551 VR slide(50k)	DCV1009
	Other Resistors	RS1/16S###J

OTHERS

	CN1503 PLUG	DKN1252

6. ADJUSTMENT

There is no information to be shown in this chapter.

7. GENERAL INFORMATION

7.1 DIAGNOSIS

7.1.1 SERVICE MODE

1. Service Mode Summary

This unit is controlled with two microcomputers. One microcomputer performs the button input and indication of FL and LED (display section), and the other microcomputer drives the player (player section).
Test mode is prepared in each microcomputer.

① **Confirmation mode of the button of display section and display function**
It is the mode which confirms button input and display function.

② **The mode which confirms the operation of the player section (use the remote control unit)**
Connect the remote control unit (RU-V101) to the data copy terminal of the player, and confirms the operation.

③ **Version confirmation mode**
Can confirm software version of each microcomputer.

2. Confirmation Mode of the Button of Display Sectiont and Display Function

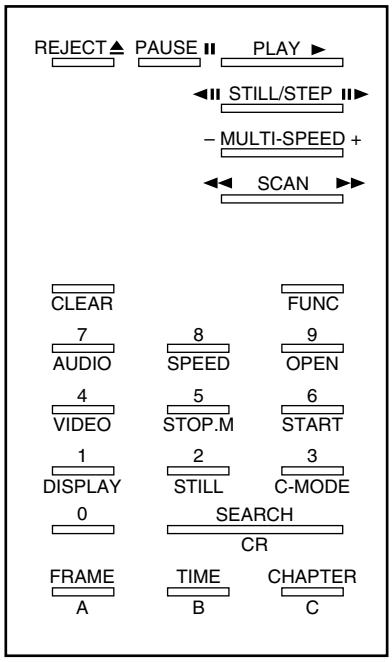
Enter this mode when turns the power on while pressing the [MEMORY] key and [TIME] key simultaneously.
It can light display part in this mode partially as follows. And it can perform each button and the input of volume and indication normally. Further, display lights while pressing the button.

	Button	Display
LED	QUICK RETURN	Light LED of QUICK RETURN
	AUTO BEAT (1, 2, 4, 8)	Light LED of each beat
	REVERSE	Light LED of REVERSE
	CUE	Light LED of CUE
	PLAY/PAUSE	Light LED of PLAY/PAUSE
	LOOP IN	Light LED of LOOP IN
	LOOP OUT	Light LED of LOOP OUT
	JOG MODE	Light LED of VINYL
	TEMPO RANGE	Light LED of TEMPO RANGE
	MASTER TEMPO	Light LED of MASTER TE M PO
FL	TRACK/SEARCH - FWD	Light "REMAIN", "M", " : ", "88" of a minute and "8" of high-order digit of a second
	TRACK/SEARCH - REV	Light "88" of the track number, "A. COU" and "QUICK RETURN"
	SEARCH - FWD	Light "S", "F", "8" of low order digit of a second and "88" of a frame
	SEARCH -REV	Light all of Playing bar and frame
	TIME MODE/AUTO CUE	Light "+1888%" of tempo, "888" of BPM, "WIDE", "MT" and "BPM"
	RELOOP/EXIT	Light all FLs, JOG-FLs and LEDs of the main unit
	CALL	Light all the rotation display parts of JOG-FL
	MEMORY	Light all CUE point marks of JOG-FL
	EJECT	Light "VINYL" character and a frame (blue) of the JOG-FL center
	JOG ADJUST VOLUME	Goes out the ring A of JOG-FL when the volume position is less than the center. And light it when it is more than the center.
	SLIDER VOLUME	Goes out the ring B of JOG-FL when the volume position is less than the center. And light it when it is more than the center.

3. Confirmation Mode of the Operation with the Player being Simple

Connect the remote control unit (RU-V101) to DATA IN/OUT terminal of the Rear panel, and confirms the operation.
These commands test a mechanism and servo system mainly. Therefore, DJ function such as scan or tempo does not work.
Prepare only a command that searches arbitrary music and playback the audio.

Connect the remote control unit, and enter this mode when turns the power on while pressing the [MEMORY] key and [REVERSE] key simultaneously.



Function	Button corresponding to RU-V101	
A Time mode set	TIME	
Track mode set	CHAPTER	
Block mode set	FRAME	
Play	PLAY	
Reject	REJECT	
Pause	PAUSE	
Search	SEARCH	
Eject	OPEN	(FUNC + 9)
Audio Play	AUDIO	(FUNC + 7)
Test/Normal Mode Change	C-MODE	(FUNC + 3)
Servo All Off	0 + TIME	
Focus On	1 + TIME	
Spindle Kick, Tracking On/Off	2 + TIME	
Tracking Off	3 + TIME	
Slide FWD	4 + TIME	
Slide REV	5 + TIME	
Search TR No.2	6 + TIME	
Pickup Up/Down	7 + TIME	

• Specification method of addressing modes in the search

There are three ways of search methods of time search, track search and block search in this unit.
It is necessary to specify each mode when performs each search.
After specified the mode once, mode is maintained till modifies it next.

• Time search (A Time mode set)
Set absolute time (minute, second) in the address mode.
Examples: When search for 2 minutes 34 seconds
Press buttons of [TIME], [0], [2], [3], [4] and [SEARH] in order.

• Track search (Track mode set)
Set track number in the address mode.
Examples: When search for track 5
Press buttons of [CHAPTER], [5] and [SEARCH] in order.

• Block search (Block mode set)
Set block in the address mode.
Examples: When search for 2 minutes 34 seconds 56 frame
Press buttons of [FRAME], [0], [2], [3], [4], [5], [6] and [SEARCH] in order.

• Player operation command

(Play)
Set up and play. (it is not audio playback)
In addition, release it if it is the pause state.

(Reject)
Stop

(Pause)
Pauses at the position.

(Eject)
In the playback state or stop state, perform the disc eject.

(Audio Play)
Audio playbacks the arbitrary music.
It is necessary for this command that Player is set up beforehand. Please execute (Play) first.

(Reject) Stop by the command.
Examples: When audio playbacks at track 8 Press buttons of [8], [AUDIO], ([FUNC] and [7]) in order.

- **Test operation command**

It can control servo operation finely.
Be careful not to damage the player by mistake the usage of test command.

(Test/Normal Mode Change)
[C-MODE] Switch the Test mode/Normal mode by [FUNC] and [3] buttons.
Can use only commands of 7TM from 0TM in the test mode.

(Servo All Off)
During servo ON, turn all servos OFF when pressing the [0] and [TIME] buttons in order.

(Focus On)
During CD STOP, turns the LD ON when pressing [1] and [TIME] buttons in order, and perform the autofocus.

(Spindle Kick, Tracking ON/Off)
During tracking servo OFF, perform the spindle kick and turn the automatic adjustment processing and tracking servo ON when pressing [2] and [TIME] buttons in order.
Also during tracking servo ON, turn the tracking servo OFF when pressing [2] and [TIME] buttons in order.

(Tracking OFF)
During tracking servo ON, turn the tracking servo OFF when pressing [3] and [TIME] buttons in order.

(Slide FWD)
During tracking servo ON, turn the tracking servo OFF and move the slider in the FWD direction when pressing [4] and [TIME] buttons in order.

(Slide REV)
During tracking servo ON, turn the tracking servo OFF and move the slider in the REV direction when pressing [5] and [TIME] buttons in order.

(Search TR No.2)
During CD STOP, perform the following operations when pressing [6] and [TIME] buttons in order.
LD ON → Autofocus → Spindle kick → Automatic adjustment processing → Second tune search → Tracking servo ON
When performed Tracking OFF, there is the case that cannot rise up in this command. In that case please repeat once again.

(Pickup UP/DOWN)
During CD STOP, turn the LD ON and move the pickup up and down when pressing [7] and [TIME] buttons in order.
Do not close the focus.

* When rise by a step with the test mode, input a command by pressing buttons of [0], [TIME], [1], [TIME], [2] and [TIME] in order.

4. Version confirmation mode

Confirm the software version of each microcomputer.

- **Symptom of the microcomputer software version of the display section**
  Turn the power on while pressing the [MEMORY] and [TRACK-SEARCH-REV] buttons, then two figures character is displayed at the track number display section. This shows a version. (First edition is as 10)

- **Symptom of the microcomputer software version of the player section**
  In the normal use, three figures of numbers are displayed at the tempo display section that continues pressing the [RELOOP] button for 10 seconds. This shows a version. (First edition is as 1.00)

5. Error display list

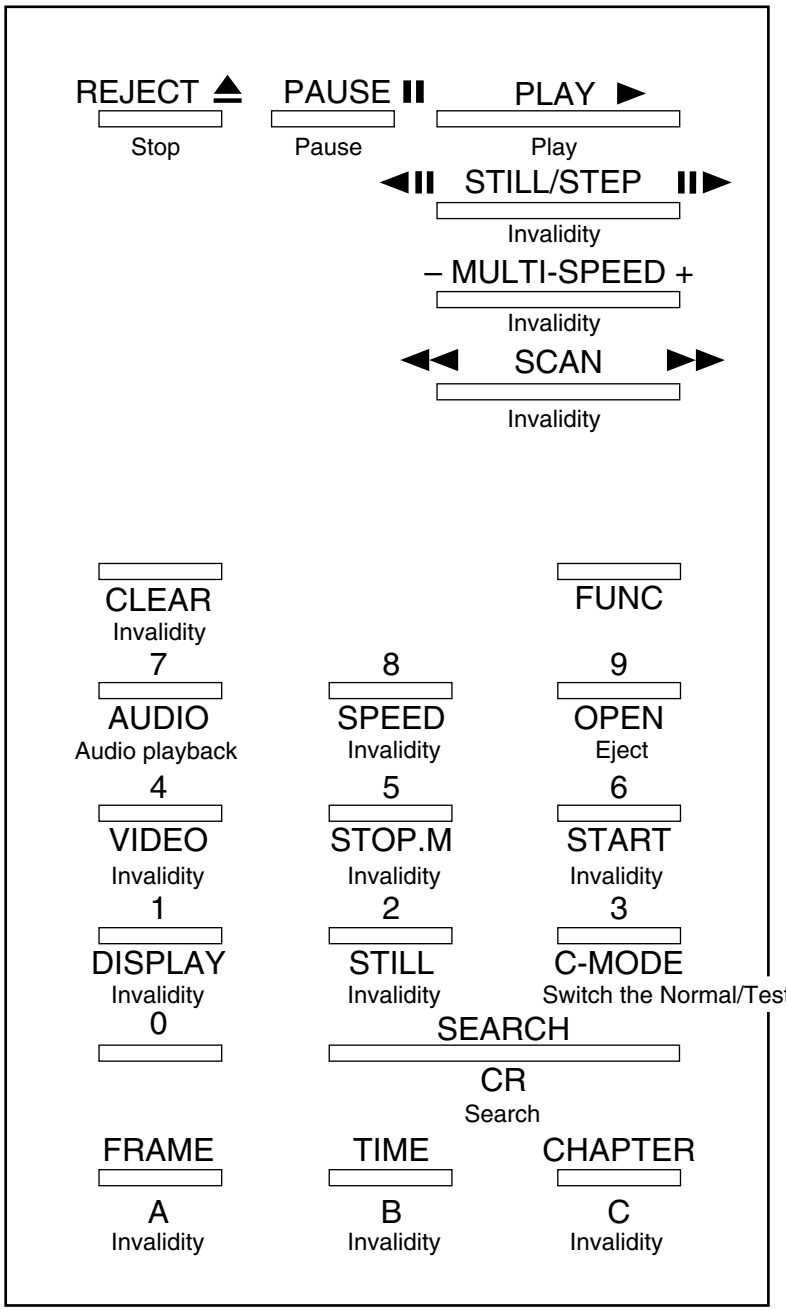
When normal operation is not completed in normal use, indicate the following error code in the display section.
It can confirm the history of error contents till 16 histories when enter the version confirmation mode of the foregoing paragraph.
In this mode In this mode, display the error content in the "minute" display section (M) and display the memory address of microcomputer in the "second + frame" display section (S, F). (hexadecimal number)
Address changes when rotating the jog dial, and check range of DF20H-DF2FH. (initial value is DF20H)
DF20H is the newest, and DF2FH is the oldest error contents. The latest error is stored into DF20H.

Error Code	Error Name	Error Contents
E-7201	TOC READ ERROR	26: Cannot lead TOC data
E-8301	PLAYER ERROR (Abnormality of raising up)	12: Specified address were not able to search 15: Address is not readable 22: Focus servo cannot close **(* Note)** 91: Pickup does not return to the internal periphery of the disc
E-8302	PLAYER ERROR (Abnormality of playback)	12: Specified address were not able to search 15: Address is not readable 22: Focus servo cannot close
E-8303	PLAYER ERROR (Buffer writing abnormality)	99: Abnormality of buffer write
E-9101	MECHANICAL TIME OUT	90: Abnormality of disc loading mechanism (Timeout)

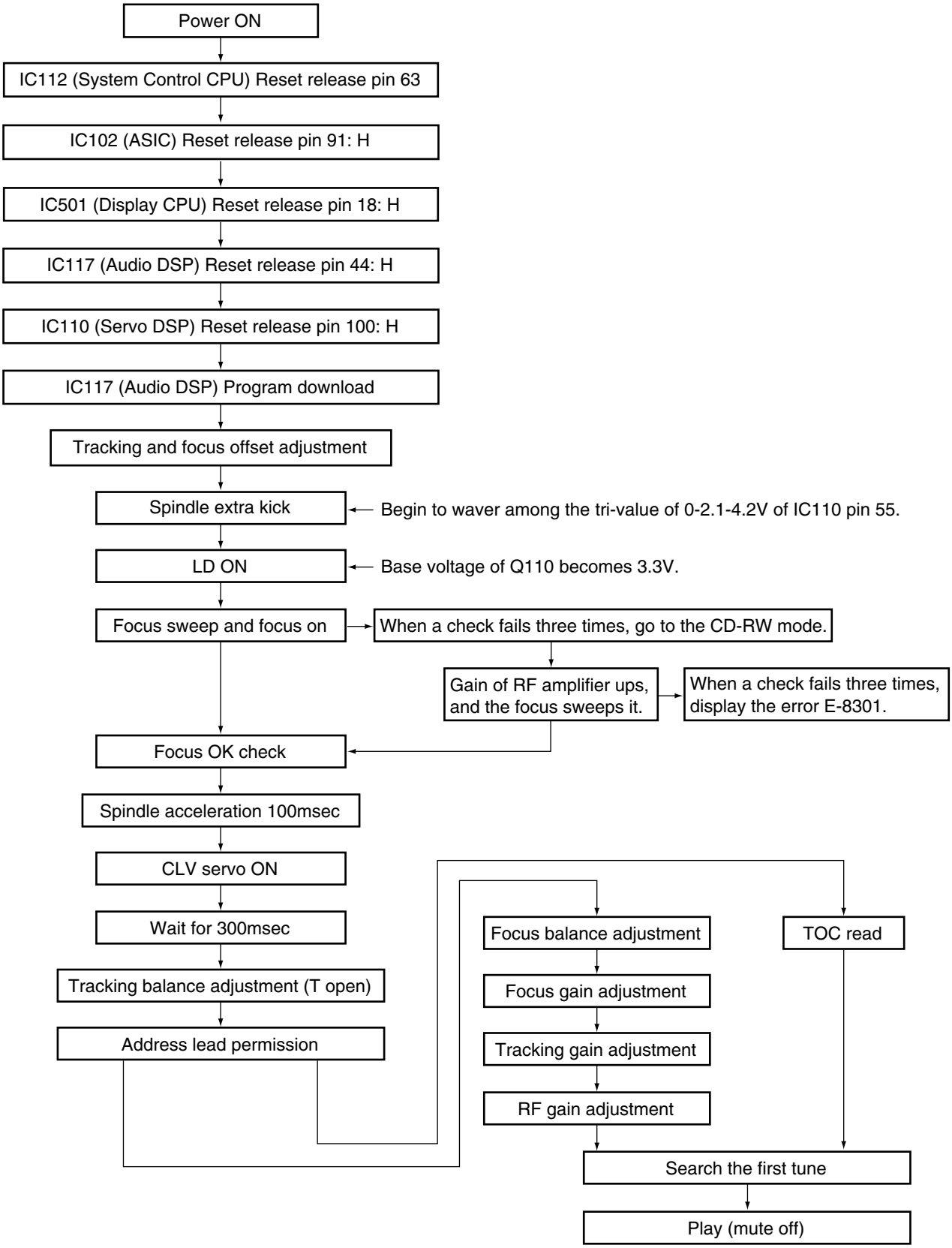
*** Note:** When these error occurred before recognizing disc to be a CD, eject the disc automatically.
Then, error code is not displayed, but please refer to the error contents which are stored into the memory.

■ Chart of a remote control unit function of CDJ-800

* Caution in the remote control unit use: Please connect to the DATA IN/OUT terminal before turning the power on.



7.1.2 POWER ON SEQUENCE


Power ON
IC112 (System Control CPU) Reset release pin 63
IC102 (ASIC) Reset release pin 91: H
IC501 (Display CPU) Reset release pin 18: H
IC117 (Audio DSP) Reset release pin 44: H
IC110 (Servo DSP) Reset release pin 100: H
IC117 (Audio DSP) Program download
Tracking and focus offset adjustment
Spindle extra kick
Begin to waver among the tri-value of 0-2.1-4.2V of IC110 pin 55.
LD ON
Base voltage of Q110 becomes 3.3V.
Focus sweep and focus on
When a check fails three times, go to the CD-RW mode.
Gain of RF amplifier ups, and the focus sweeps it.
When a check fails three times, display the error E-8301.
Focus OK check
Spindle acceleration 100msec
CLV servo ON
Wait for 300msec
Tracking balance adjustment (T open)
Address lead permission
Focus balance adjustment
Focus gain adjustment
Tracking gain adjustment
RF gain adjustment
TOC read
Search the first tune
Play (mute off)

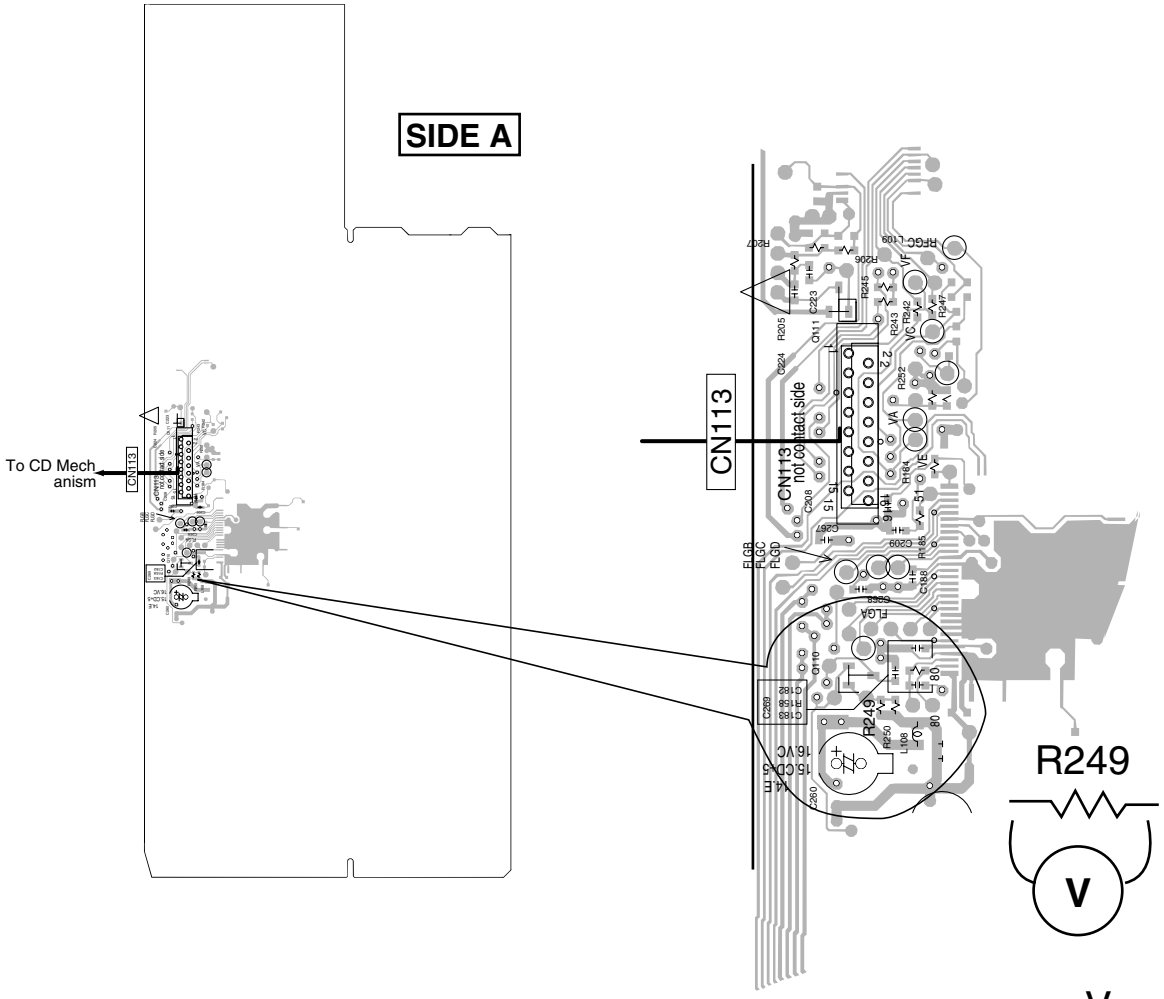
■ GOOD OR BAD JUDGEMENT METHOD OF THE PICKUP

1. LD current : 20 to 80mA TYP : 40 to 50mA
   Measure both end of R249 on the MAIN Assy in the play state. (Fig. 1)
   There must be the value that divided the measured value with 23.5 Ω within the numerical value mentioned above.

2. Focus coil DC resistor : 7.0 ± 1.0 Ω
   Pull out the flexible cable from the side of the pickup Assy.
   Measure the resistance value between the feet(F+, F-) of the posts.
   It must be within the above mentioned value.

3. Tracking coil DC resistor : 6.0 ± 1.0 Ω
   Pull out the flexible cable from the side of the pickup Assy.
   Measure the resistance value between the feet(T+, T-) of the posts.
   It must be within the above mentioned value.

A MAIN ASSY



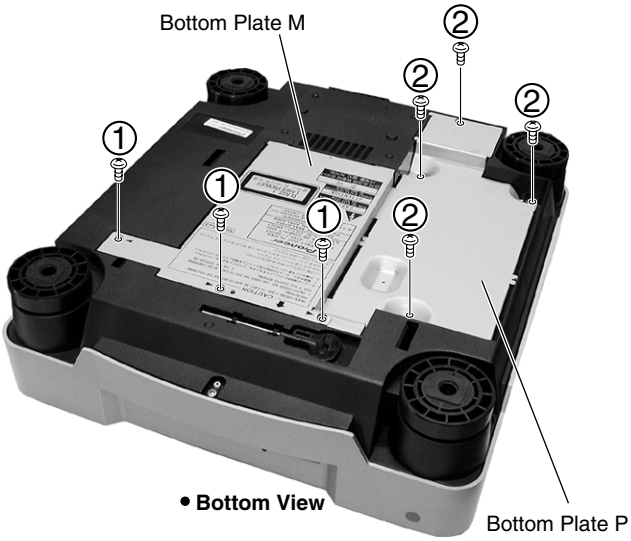
(Fig. 1)

7.1.3 DISASSEMBLY

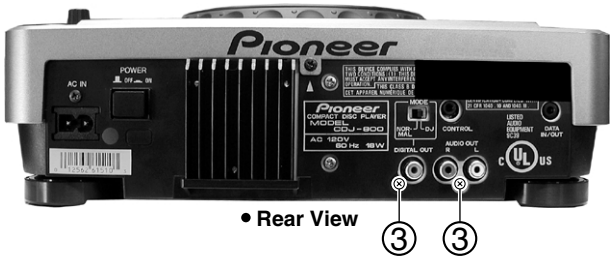
1 MAIN Assy

① Remove three screws to remove the Bottom Plate M.

② Remove four screws to remove the Bottom Plate P.

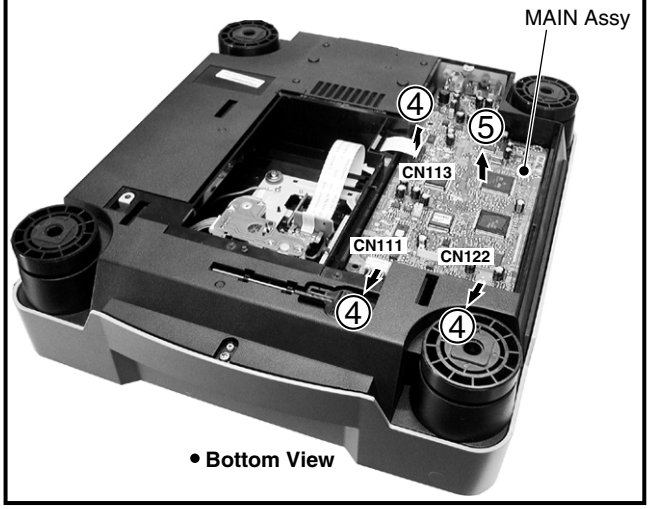


③ Remove two screws.



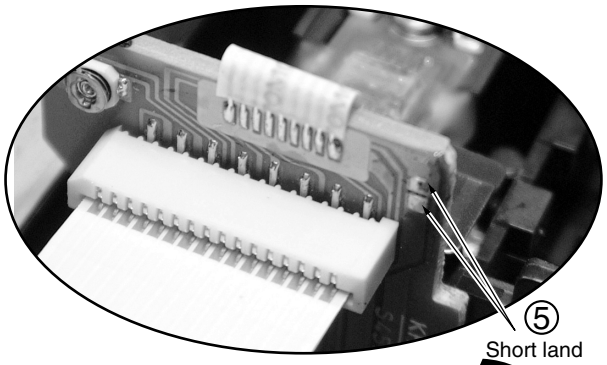
④ Disconnect two flexible cables and a connector.

⑤ Remove the MAIN Assy.



2 CD Mechanism

① Remove three screws to remove the Bottom Plate M.



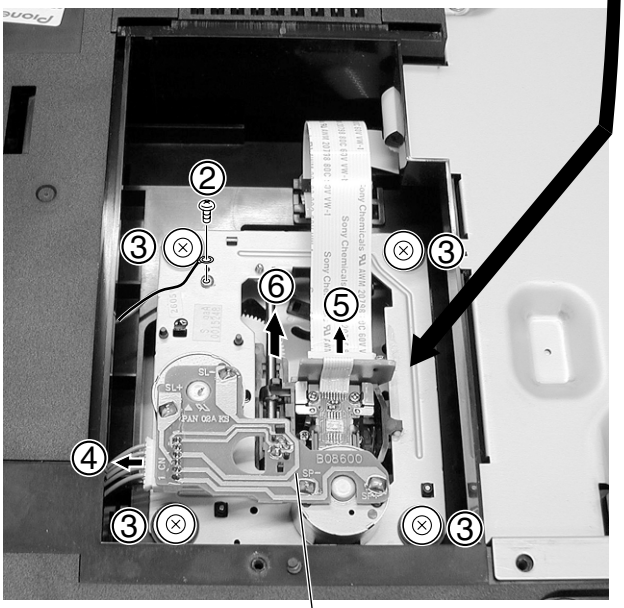
② Remove a screw.

③ Remove four screws.

④ Disconnect a spindle connector.

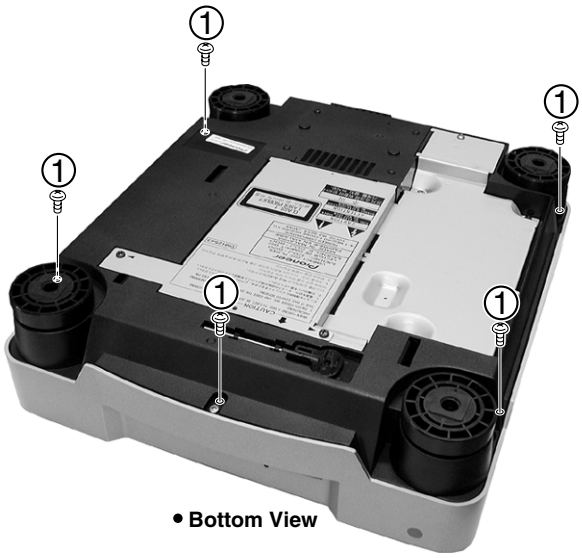
⑤ Disconnect a pickup flexible cable
[Caution in the Mechanism Assy replacement]
• When removing the Mechanism Assy, short-circuit a LD Short land ⑤ before disconnecting a flexible cable from the connector.

⑥ Remove the CD Mechanism.
• When installing the Mechanism Assy, release the short -circuit of LD Short land ⑤ after connecting the flexible cable to the connector. (For LD fracture prevention)



3 Control Panel Section

① Remove five screws.



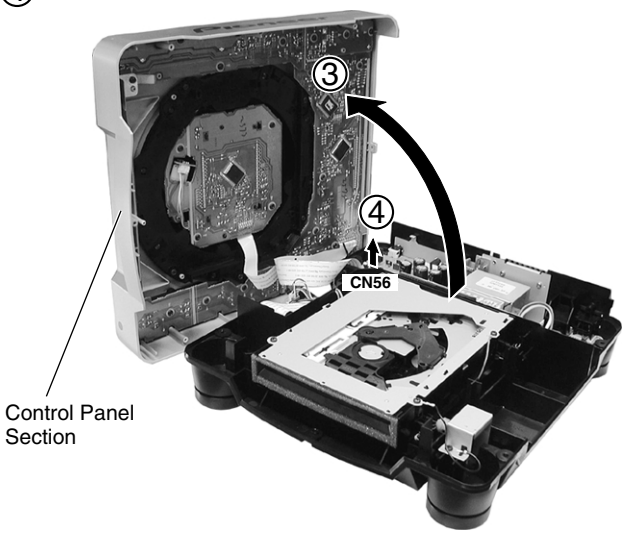
• **Bottom View**

② Remove a screw.

• **Rear View**

③ Remove the Control Panel Section.

④ Disconnect a flexible cable.

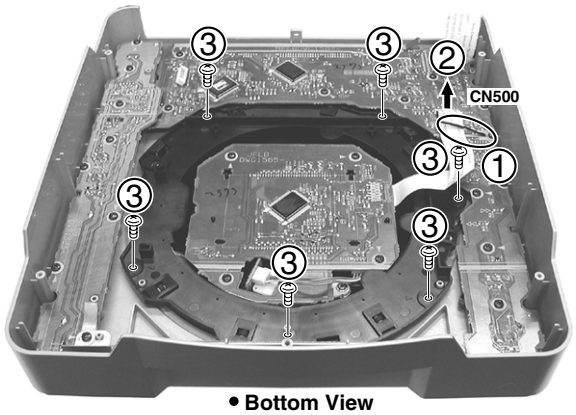


4 JOG Section

① Release a Cord Clamper.

② Disconnect a flexible cable.

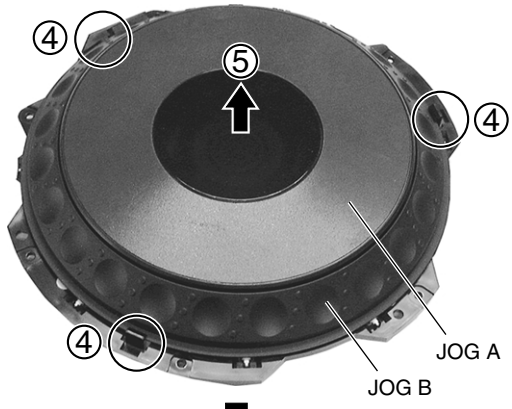
③ Remove six screws.



• **Bottom View**

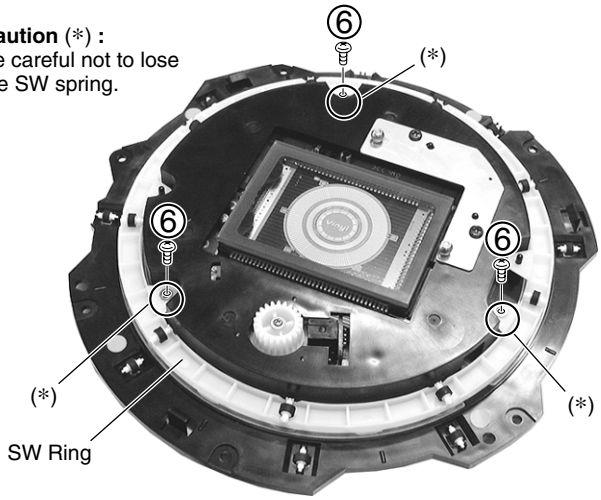
④ Unhook three hooks.

⑤ Remove the JOG B and JOG A.



⑥ Remove three screws to remove the SW Ring.

Caution (*) **:**
Be careful not to lose the SW spring.



Caution in Sheet SW Installation

① Be careful not to bend and fold the Sheet SW.

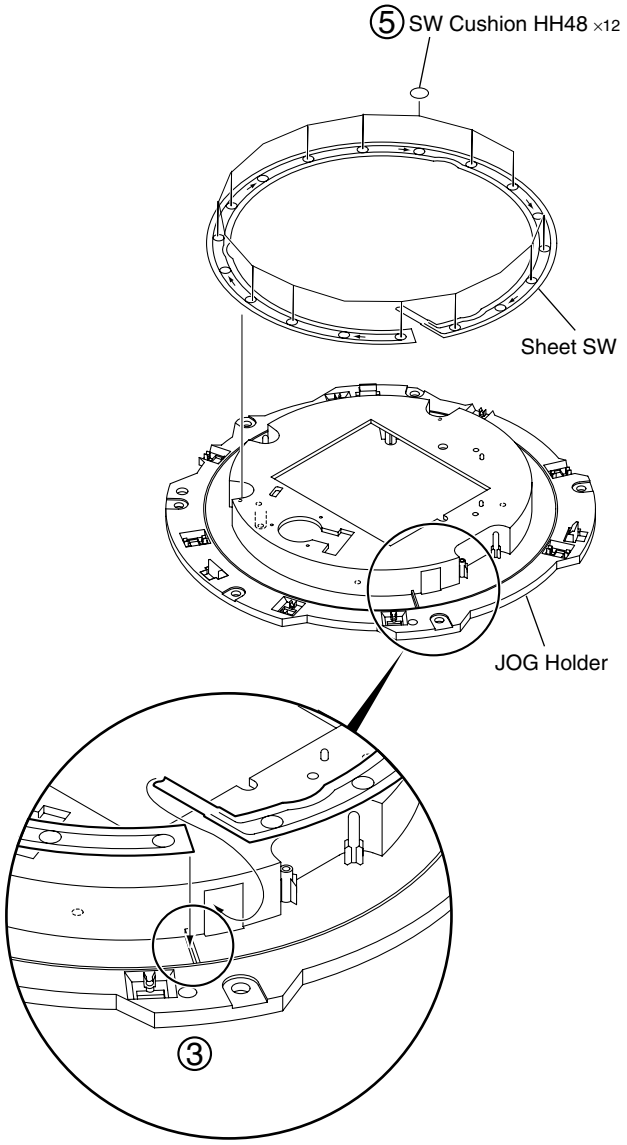
② Confirm that the dust or trash does not adhere to pasting side (JOG Holder).
In addition, when tearing off the former Sheet SW and putting a new part, completely wipe the JOG Holder off with alcohol so that paste does not remain on the pasting side of JOG Holder.

③ When putting the Sheet SW, match the position not to run aground on rib of the internal circumference of JOG Holder.

④ Sheet SW pushes all the sides including the point of contact fully, and put it. (No good air getting into it.)
(When the air got into it, remove it and replace the new one. Do not recycle it.)

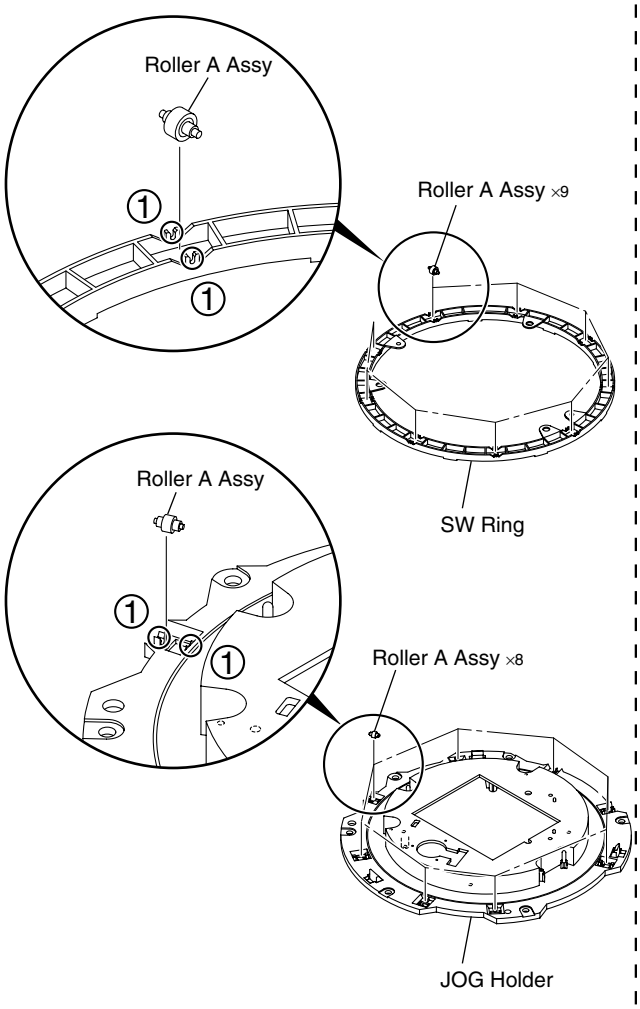
⑤ Put the SW Cushion HH48 on direction arrow part (12 places) of the Sheet SW.

⑥ When inserting a cable in connector, release a lock by all means, and connector locks after inserting it.



Caution in Roller A Assy Installation

① Apply a grease to the shaft bearing section of JOG Holder side and SW Ring side.
(Apply it to two places for roller one.)
(Be careful so that grease does not adhere to rubber section of the roller.)



7.2 PARTS
7.2.1 IC

• The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

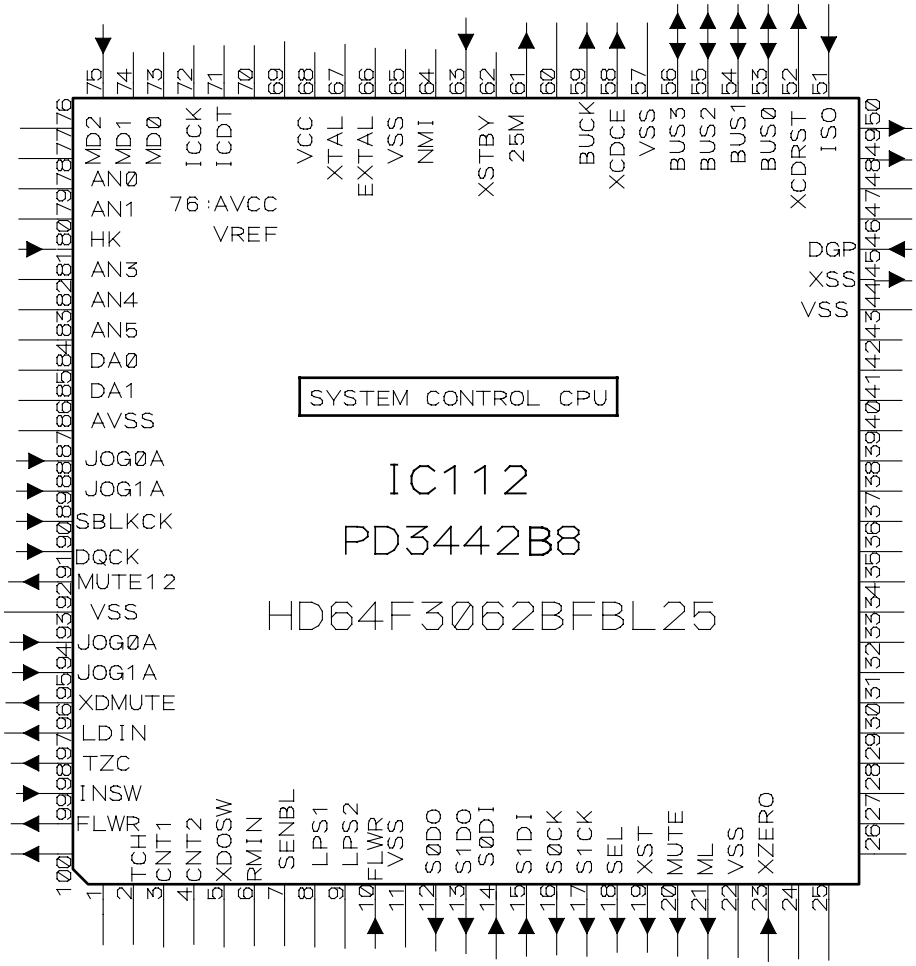
● List of IC

PD3442B8, PD101A, NJM2374AM, NJM2870F05

■ PD3442B8 (MAIN ASSY : IC112)

• SYSTEM CONTROL Microcomputer

● Pin Assignment (Top view)



• Pin Function

No.	Pin Name	I/O	Descreption
1	Vcc	-	By the capacitor (0.1μF) It GND-connects.
2	TCH	I	JIG touch sensor input
3	CNT1	I/O	Control 1 input and output terminal
4	CNT2	I	Control 2 input terminal
5	XDOSW	I	Digital OUT ON/OFF SW detection
6	RMIN	I	For a RS232C input
7	SENBL	I	The enable output to host CPU
8	LPS1	I	A loading mechanism's condition
9	LPS2	I	
10	FLWR	I	The terminal which detects a flash write-in permission signal
11	Vss	-	Digital GND
12	S0DO	O	The serial output terminal to DSP
13	S1DO	O	A serial output besides a controller
14	S0DI	I	The serial input from DSP
15	S1D1	I	A serial input besides a controller
16	S0CK	O	The serial clock to DSP
17	S1CK	O	A serial clock besides a controller
18	SEL	O	Reset to FPGA
19	XST	O	Reset to circumference IC
20	MUTE	O	Line OUT output MUTE
21	ML	O	The reset terminal for DAC
22	Vss	-	Digital GND
23	XZERO	O	The terminal for repealing zero detection
24	NC	-	
25	NC	-	-
26	NC	-	-
27	NC	-	-
28	NC	-	-
29	NC	-	-
30	NC	-	-
31	NC	-	-
32	NC	-	-
33	NC	-	-
34	NC	-	-
35	Vcc	-	Power supply (Digital 5V)
36	A0	-	FPGA interface (data bus)
37	A1	-	
38	A2	-	
39	A3	-	
40	A4	-	

• **Pin Function**

No.	Pin Name	I/O	Description
41	NC	O	It connects with GND.
42	NC	I	
43	NC	I	
44	Vss	-	Digital (GND)
45	XSS	O	Motorola DSP (preceding paragraph) Interface
46	DGP	I	Motorola DSP (preceding paragraph) Interface
47	NC	I	
48	NC	I	
49	FPGARST	O	FPGA program permission signal
50	XDSPRESET	O	Motorola DSP (latter part) Interface reset
51	ISO	I	
52	XCDRST	O	TC9495F reset (H: reset)
53	BUS0	I/O	TC9495F microcomputer I/F data 0
54	BUS1	I/O	TC9495F microcomputer I/F data 1
55	BUS2	I/O	TC9495F microcomputer I/F data 2
56	BUS3	I/O	TC9495F microcomputer I/F data 3
57	Vss	-	Digital GND
58	XCDCE	O	TC9495F chip enable signal
59	BUCK	O	TC9495F microcomputer I/F clock signal
60	Vss	-	Digital GND
61	25M	O	Clock output (25MHz) to FPGA and DSP
62	XSTBY	I	Low power consumption mode
63	XRST	I	Hard reset
64	NMI	I	Compulsive interruption
65	Vss	-	Digital GND
66	EXTAL	I	Crystal oscillation
67	XTAL	I	
68	Vcc	-	Digital 5V
69	NC	O	-
70	XSRD	O	FPGA Read
71	ICDT	O	EEPROM data output
72	ICCK	O	EEPROM clock output
73	MD0	I	CPU mode setup
74	MD1	I	
75	MD2	I	
76	Avcc	-	The power supply terminal of A/D conversion machine, and D/A conversion machine
77	VREF	-	The standard voltage input terminal of A/D conversion machine, and D/A conversion machine
78	AN0	-	It connects with GND.
79	AN1	-	It connects with GND.
80	HK	I	It connects with GND.

• **Pin Function**

No.	Pin Name	I/O	Description
81	AN3	I	It connects with GND.
82	AN4	I	
83	AN5	I	
84	DA0	O	
85	DA1	O	
86	AVss	-	The grand terminal of A/D conversion machine, and D/A conversion machine
87	JOG0A	I	JOG pulse input 0A
88	JOG1A	I	JOG pulse input 1A
89	SBLKCK	I	Motorola DSP (preceding paragraph) Interface
90	DQCK	I	Motorola DSP (preceding paragraph) Interface
91	MUTE12	I	Driver IC mute control
92	Vss	-	GND
93	JOG0A	I	JOG pulse input 0A
94	JOG1A	I	JOG pulse input 1A
95	XDMUTE	O	Data OUT output MUTE
96	LDIN	O	Slider data value
97	TZC	O	TC9495F zero detecting flag
98	IN SW	I	Slider Inside detection switch
99	FLWR	O	FL Wright
100	TOP-RST	O	Reset output for Topcpu

■ PD101A (MAIN ASSY : IC102)

• ASIC Microcomputer

● Pin Function(1/4)

No.	Pin Name	I/O	Description
1	VDD(I/O)	-	Power supply (3.3V) for I/O
2	NC	-	NC
3	RAS X	O	SDRAM row address strobe
4	CS_X	O	Chip select (for SDRAM)
5	BA0	O	SDRAM bank address
6	BA1	O	SDRAM bank address
7	A10	O	SDRAM address bus
8	GND	-	GND for core
9	VDD(core)	-	Power supply (3.3V) for core
10	A0	O	SDRAM address bus
11	A1	O	SDRAM address bus
12	A2	O	SDRAM address bus
13	A3	O	SDRAM address bus
14	VDD(core)	-	Power supply (3.3V) for core
15	GND	I	GND D
16	VDD (I/O)	-	Power supply (3.3V) for I/O
17	GND	-	GND for I/O
18	COUNT_TEST	I	Count test pin
19	HD15	I/O	DSP Data bus
20	HD14	I/O	DSP Data bus
21	HD13	I/O	DSP Data bus
22	S1 IN	I	PLL TEST terminal
23	HD12	I/O	DSP Data bus
24	VDD (core)	-	Power supply (3.3V) for core
25	GND	-	GND for core
26	HD11	I/O	DSP Data bus
27	HD10	I/O	DSP Data bus
28	HD9	I/O	
29	HD8	I/O	
30	HD7	I/O	
31	HD6	I/O	
32	TEST1	I	PLL TEST terminal
33	GND	-	GND for I/O
34	TEST2	I	PLL TEST terminal
35	VDD (I/O)	-	Power supply (3.3V) for I/O
36	AVDD (AVss)	-	Power supply for PLL
37	VCNT	-	PLL terminal
38	AVSS (AVSS)	-	GND for PLL
39	NC	-	NC
40	HD5	I/O	DSP Data bus

• **Pin Function(2/4)**

No.	Pin Name	I/O	Description
41	HD4	I/O	DSP Data bus
42	HD3	I/O	DSP Data bus
43	HD2	I/O	DSP Data bus
44	HD1	I/O	DSP Data bus
45	GND	-	GND for CORE
46	HD0	I/O	DSP Data bus
47	HA5	I	DSP Address bus
48	HA4	I	DSP Address bus
49	HA3	I	DSP Address bus
50	HA2	I	DSP Address bus
51	HA1	I	DSP Address bus
52	GND	-	GND for I/O
53	VDD (I/O)	-	Power supply (3.3V) for I/O
54	HCS_X	I	DSP chip selection
55	VDD (core)	-	Power supply (3.3V) for CORE
56	HA0	I	DSP Address bus
57	RD_X	I	DSP read strobe signal
58	WR_X	I	DSP write strobe signal
59	GND	-	GND for CORE
60	0_25M	O	Clock output (25MHz)
61	GND	-	GND for I/O
62	GND	I	GND D
63	O_DGP	O	5-3v converte output
64	O_SIPF	O	5-3v converte output
65	O_SBCK	O	5-3v converte output
66	O_SLRCK	O	5-3v converte output
67	O_SDATA	O	5-3v converte output
68	NC		NC
69	PLLRESET-X	I	PLL Reset input
70	VDD (I/O)	-	Power supply (3.3V) for I/O
71	VDD (I/O)	-	Power supply (3.3V) for I/O
72	NC		NC
73	GND	-	GND for I/O
74	O_SBLKCK	O	5-3v converte output
75	O_XSS	O	5-3v converte output
76	I_SIDI	I	5-3v converte input
77	O_SIDI	O	5-3v converte output
78	O_SICK	O	5-3v converte output
79	I_SBLKCK	I	5-3v converte input
80	I_SIPF	I	5-3v converte input

• **Pin Function(3/4)**

No.	Pin Name	I/O	Description
81	GND	-	GND for CORE
82	VDD (core)	-	Power supply (3.3V) for CORE
83	I_SDATA	I	5-3v Switching input
84	I_SBCK	I	5-3v Switching input
85	I_SLRCK	I	5-3v Switching input
86	S21N	I	PLL TEST terminal
87	S31N	I	PLL TEST terminal
88	SCLK	I	System clock
89	GND	-	GND for I/O
90	VDD (I/O)	-	Power supply (3.3V) for I/O
91	RESET_X	I	System reset
92	VDD (core)	-	Power supply (3.3V) for CORE
93	I_DGP	I	5-3v Switching input
94	I_XSS	I	5-3v Switching input
95	I_SIDO	I	5-3v Switching input
96	I_SICK	I	5-3v Switching input
97	VDD (core)	-	Power supply (3.3V) for CORE
98	GND	-	GND for CORE
99	O_SIDI	I/O	SDRAM Data bus
100	DQ0	I/O	SDRAM Data bus
101	DQ1	I/O	SDRAM Data bus
102	DQ2	I/O	SDRAM Data bus
103	DQ3	I/O	SDRAM Data bus
104	NC	-	NC
105	SCANTEST	I	Test terminal
106	SCANEN	I	Test terminal
107	VDD (I/O)	-	Power supply (3.3V) for I/O
108	VDD (I/O)	-	Power supply (3.3V) for I/O
109	GND	-	GND for CORE
110	GND	-	GND for I/O
111	GND	-	GND for I/O
112	DQ4	I/O	SDRAM Data bus
113	DQ5	I/O	SDRAM Data bus
114	DQ6	I/O	SDRAM Data bus
115	DQ7	I/O	SDRAM Data bus
116	DQ15	I/O	SDRAM Data bus
117	DQ14	I/O	SDRAM Data bus
118	DQ13	I/O	SDRAM Data bus
119	GND	-	GND for I/O
120	DQ12	I/O	SDRAM Data bus

A

• Pin Function (4/4)

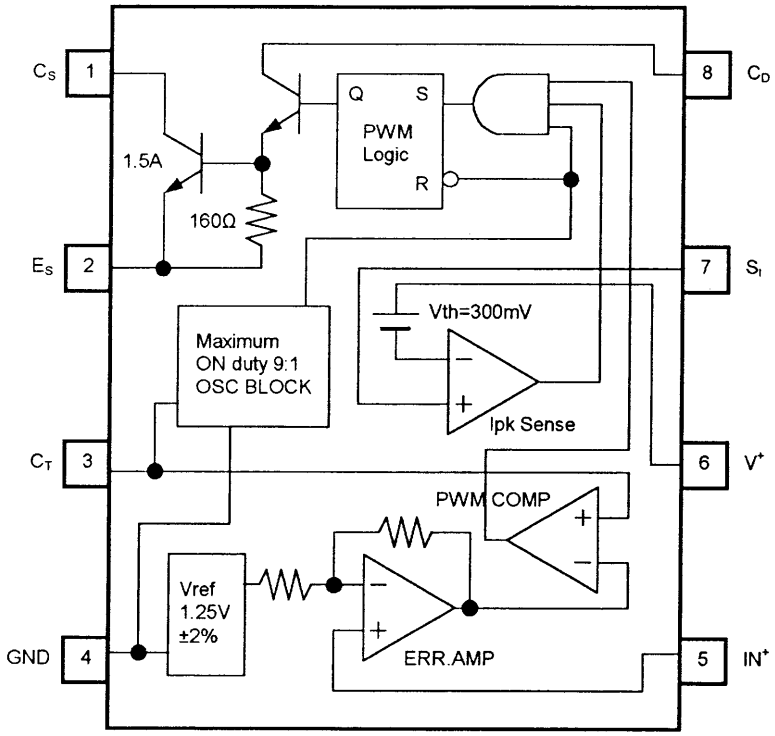
No.	Pin Name	I/O	Description
121	DQ11	I/O	SDRAM interface Data bus
122	DQ10	I/O	SDRAM interface Data bus
123	DQ9	I/O	SDRAM interface Data bus
124	DQ8	I/O	SDRAM interface Data bus
125	VDD (core)	-	Power supply (3.3V) for CORE
126	GND	-	GND for CORE
127	VDD (I/O)	-	Power supply (3.3V) for I/O
128	GND	-	GND for I/O
129	NC	-	NC
130	SDRAMCLK	O	SDRAM Clock
131	A11	O	SDRAM interface Address bus
132	A9	O	SDRAM interface Address bus
133	A8	O	SDRAM interface Address bus
134	A7	O	SDRAM interface Address bus
135	GND	-	GND for I/O
136	A6	O	SDRAM interface Address bus
137	A5	O	SDRAM interface Address bus
138	A4	O	SDRAM interface Address bus
139	DQML	O	SDRAM Data mask
140	WE_X	O	SDRAM Write enable
141	CAS_X	O	SDRAM columu address strobe
142	NC	-	NC
143	GND	-	GND for I/O
144	VDD (I/O)	-	Power supply (3.3V) for I/O

B C D E F

■ NJM2374AM (MAIN ASSY : IC107)

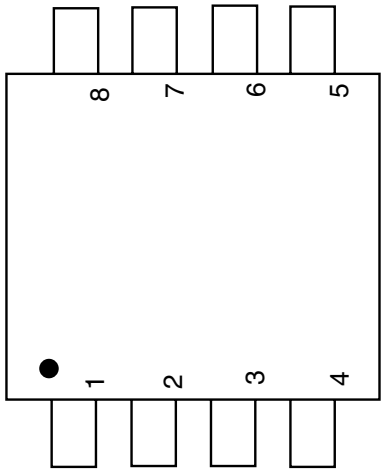
● DC-DC CONVERTER

● Block Diagram



1 . Cs
2 . Es
3 . Cr
4 . GND
5 . IN^+
6 . V^+
7 . S_I
8 . Cp

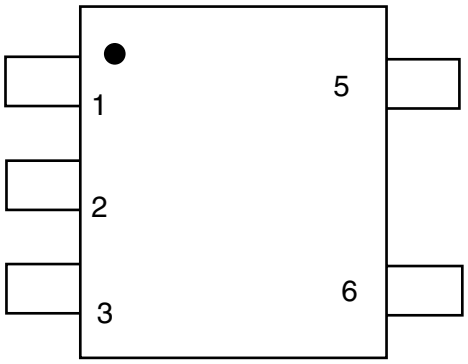
● Pin Arrangement



■ NJM2870F05 (MAIN ASSY : IC123)

● 5V Regulator

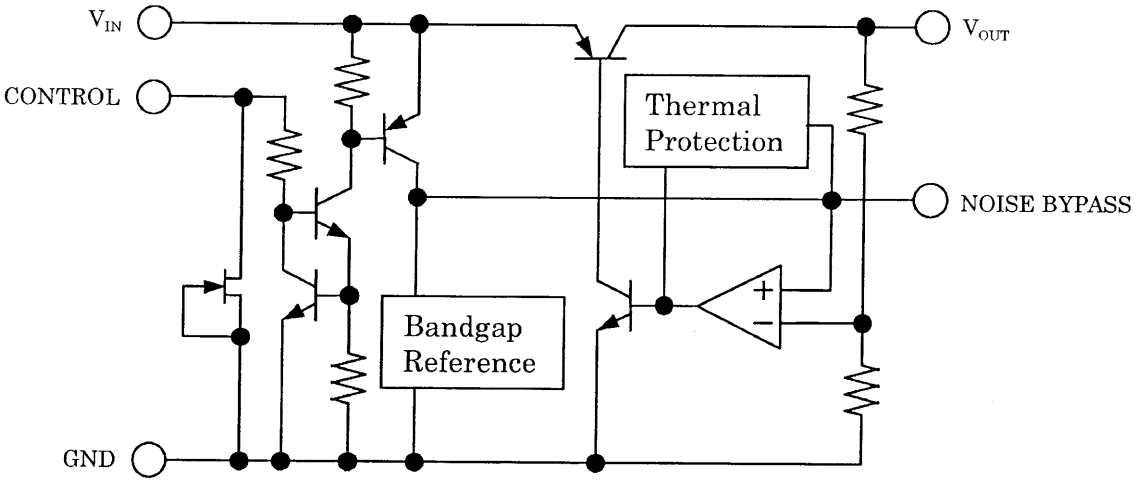
● Pin Configuration



PIN FUNCTION

1 . CONTROL
2 . GND
3 . NOISE BYPASS
4 . Vout
5 . Vin

● Block Diagram

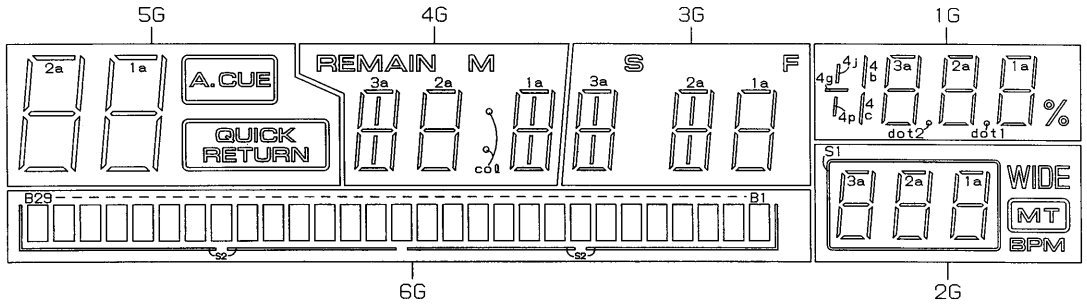


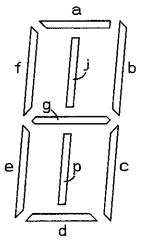
7.2.2 DISPLAY

■ DEL1048 (MFLB ASSY : V501)

- **FL Indicator Tube**

● Grid Assignment





(5G~1G)

● Pin Connection

PIN CONNECTION

PIN NO.	55 32	55 10	54 98	44 76	44 54	44 32	44 10	43 98	33 76	33 54	33 32	33 10	32 98	22 76	22 54	22 32	22 10	21 98	11 76	11 54	11 32	11 10	11 98	11 76	11 54	11 32	11 10	98	76	54	32	10	98	76	54	32	1
CONNECTION	F2	F2	NP	NP	P0	P9	P8	P7	P6	P5	P4	P3	P2	P1	P0	P9	P8	P7	P6	P5	P4	P3	P2	P1	P0	P9	P8	P7	P6	P5	P4	P3	P2	P1	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	65	54	32	21	NP	NP	F1	F1

NOTE
1) F1,F2 --- Filament
2) NP ------ No pin
3) NX ------ No extend pin
4) DL ------ Datum Line
5) 1G~6G --- Grid
6) 視野角は、下側28.8°MINとする。
(Field of vision is a minimum of 28.8° from the lower side.)

● Anode Connection

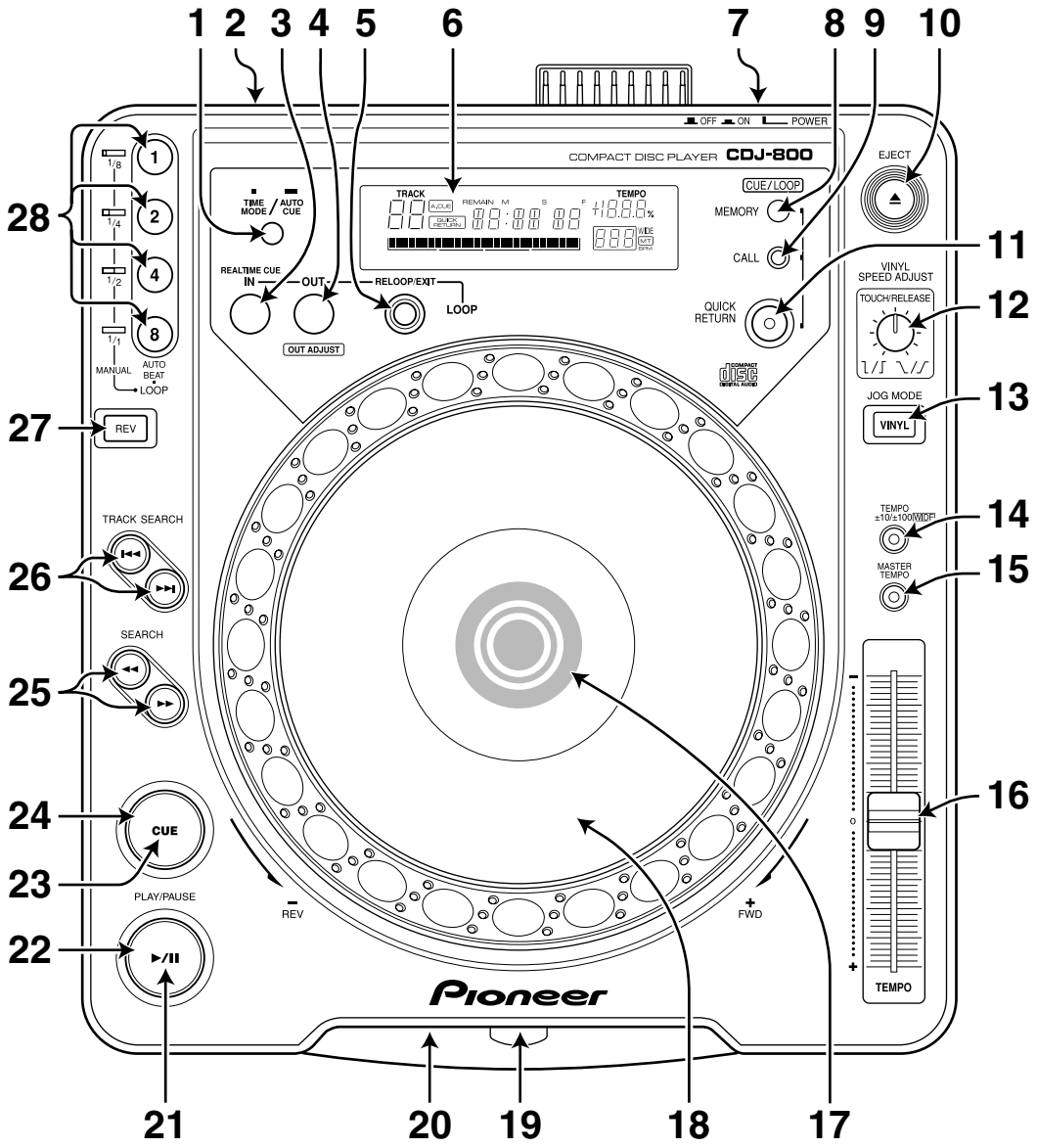
ANODE CONNECTION

	6G	5G	4G	3G	2G	1G
P1	B1	A.CUE	REMAIN	S F	WIDE	%
P2	B2	QUICK RETURN	M	-	MT	1a
P3	B3	1a	1a	1a	BPM	1b
P4	B4	1b	1b	1b	S1	1f
P5	B5	1f	1j,1p	1f	1a	1g
P6	B6	1g	1f	1g	1b	1c
P7	B7	1c	1g	1c	1f	1e
P8	B8	1e	1c	1e	1g	1d
P9	B9	1d	1e	1d	1c	dot1
P10	B10	2a	1d	2a	1e	2a
P11	B11	2b	col	2b	1d	2b
P12	B12	2f	2a	2j,2p	2a	2f
P13	B13	2g	2b	2f	2b	2g
P14	B14	2c	2f	2g	2f	2c
P15	B15	2e	2g	2c	2g	2e
P16	B16	2d	2c	2e	2c	2d
P17	B17	-	2e	2d	2e	dot2
P18	B18	-	2d	3a	2d	3a
P19	B19	-	3a	3b	3a	3b
P20	B20	-	3b	3p,3j	3b	3f
P21	B21	-	3j,3p	3f	3f	3g
P22	B22	-	3f	3g	3g	3c
P23	B23	-	3g	3c	3c	3e
P24	B24	-	3c	3e	3e	3d
P25	B25	-	3e	3d	3d	4b,4c
P26	B26	-	3d	-	-	4j,4p
P27	B27	-	-	-	-	4g
P28	B28	-	-	-	-	-
P29	B29	-	-	-	-	-
P30	S2	-	-	-	-	-

8. PANEL FACILITIES

8.1 PANEL FACILITES

■ Front Panel



1. TIME MODE/AUTO CUE button (*)

TIME MODE:

Each time this button is pressed, the time display changes between elapsed playback time and remaining playback time (REMAIN)of each track.

- The **TIME MODE** is stored in memory and persists even when the power is turned off.

AUTO CUE:

Hold down this key for 1 second or longer to toggle between **AUTO CUE** on and off.

- **AUTO CUE** on/off status is stored in memory and persists even when the power is turned off.

2 DIGITAL OUT MODE switch (DJ/NORMAL)

This switch is located on the unit's rear panel. When set to DJ, the DIGITAL OUT connector outputs audi odata alone. When set to NORMAL, digital data (including sub-codes) is output, but the unit's DJ functions are not supported (operation buttons marked with the asterisk (*) are disabled).
No sound will be produced in the Pause mode.

3 LOOP IN/REALTIME CUE button / indicator (*)

Real-time cue

Enter loop in point

4 LOOP OUT (OUT ADJUST) button / indicator (*)

Enter loop out point

Loop out point adjust

5 RELOOP/EXIT button (*)

6 Display

7 POWER switch (OFF■/ON ▂)

This switch is located on the rear panel of the unit.

8 CUE/LOOP MEMORY button (*)

Stores Cue points and Loop points in internal memory.

9 CUE/LOOP CALL button (*)

Calls Cue points and Loop points stored in internal memory.

10 EJECT button (⏏)

When this button is pressed the disc is ejected through the disc loading slot when it stops rotating.

11 QUICK RETURN button / Indicator (*)

If this switch is set to ON when the JOG MODE is set to VINYL, pressing the surface of the Jog dial will cause play to return quickly to the cue point .

12 VINYL SPEED ADJUST TOUCH/RELEASE dial (*)

This dial control is used to adjust the deceleration speed from play to full stop when the JOG MODE is set to VINYL and the Jog dial surface is pressed, and also the acceleration speed from full stop to play when the user's finger is removed from the surface of the Jog dial .

13 JOG MODE VINYL button / indicator (*)

VINYL mode: when the surface of the Jog dial is pressed during playback, playback stops and if the dial is rotated, music is output according to the speed the dial is turned.

- The JOG MODE is stored in memory and remains in memory even if the power is turned off.

CDJ mode: above operation is not performed even when the Jog dial surface is pressed.

14 TEMPO control range button / indicator (±10/±100 WIDE) (*)

Each time this button is pressed, the variable range of the TEMPO control slider changes between ± 10% and ±100%; when set to ±100 WIDE, the button indicator lights.

15 MASTER TEMPO button / indicator (*)

Each press of the button turns the master tempo function on or off.

16 TEMPO control slider (*)

Slide the knob towards you (+) to increase the tempo and slide it away from you (-) to decrease it.

17 Jog Dial Display

18 Jog dial (+FWD/-REV) (*)

19 Disc loading slot

20 Force ejection hole

21 PLAY/PAUSE indicator (▶/❚❚)

Lights during play and flashes during pause.

22 PLAY/PAUSE button (▶/❚❚)

23 CUE indicator (*)

Lights when a Cue point is set.
Flashes in pause mode.

24 CUE button (*)

Cue point settings
Cue point sampler
Back cue

25 SEARCH buttons (◀◀, ▶▶)

26 TRACK SEARCH buttons (I◀◀, ▶▶I)

27 Reverse button / indicator (REV) (*)

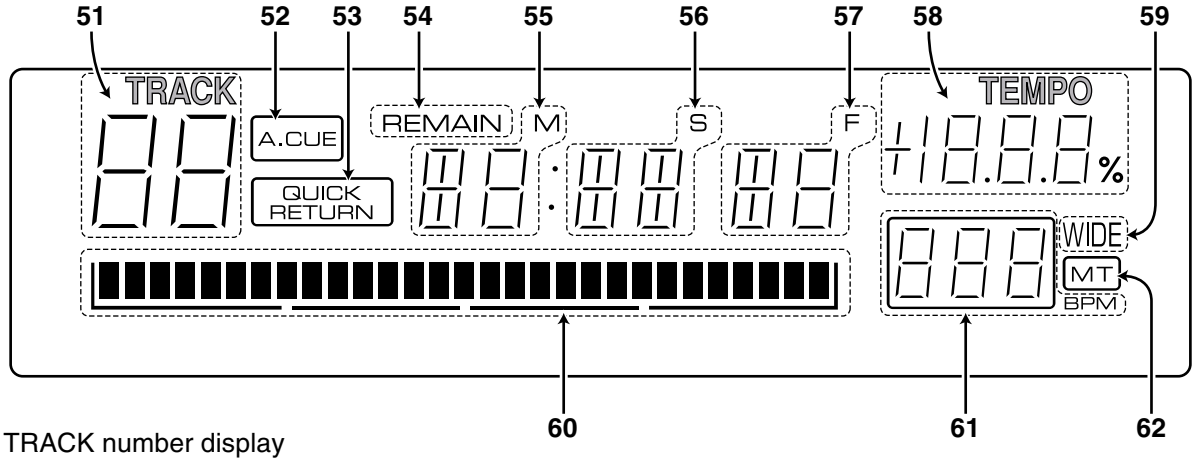
When this button is pressed, its indicator lights and the unit is set to reverse play.

28 AUTO BEAT LOOP buttons / indicators (1, 2, 4, 8) (*)

(MANUAL 1/8, 1/4, 1/2, 1/1)

When this button is pressed, auto loop play is performed based on the track's BPM (1 beat, 2 beats, 4 beats or 8 beats).
When a loop has been set manually, the button operates as a loop shortening button (1=1/8, 2=1/4, 4=1/2, 8=1/1).

■ DisPlay



51 TRACK number display
Displays TRACK numbers.

52 Auto cue indicator (A. CUE)
Lights when auto cue is on.

53 QUICK RETURN indicator
Lights when QUICK RETURN function is ON.

54 REMAIN indicator
Indicates that track remaining time is being displayed.

55 Time display (min) (M)

56 Time display (sec) (S)

57 Frame display (F)
One second is 75 frames.

58 TEMPO display
Displays how much change is being applied to playback speed by the TEMPO control slider.

59 Tempo control range indicator (WIDE)
Lights when TEMPO ±10/±100 WIDE button is set to "±100 WIDE".

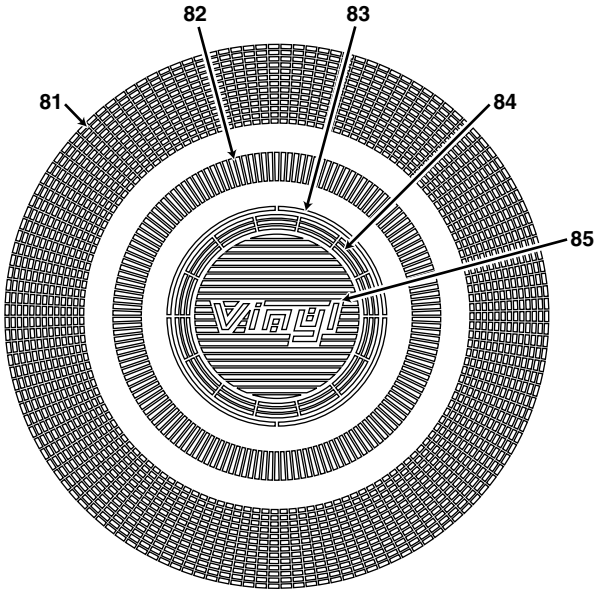
60 Playback address display
Indicates elapsed playback time and remaining playback time in an easy to grasp 1-track full scale bar graph.

- The 1-track full scale mode shows elapsed time by lit segments from the left.
- The 1-track full scale mode shows remaining time by unlit segments from the left .
- When the remaining time is 30 seconds or less, the display flashes gently and the flashing becomes faster when there is 15 seconds or less left.

61 BPM counter
Indicates BPM for the current track.
The BPM counter may sometimes not be able to measure the BPM of a track.

62 Master tempo indicator (MT)
Lights when the master tempo function is on.

■ Jog Dial Display



81 Operation display
Indicates play position in frames 135 frames for one full rotation. Turns during playback and stops during pause.

82 Cue point position indicator
Indicates the current cue point position.

83 Display the condition of the audio memory
When set in the audio memory display mode the light will flash when recording.

84 Jog touch detection indicator
In the VINYL mode, this indicator lights when the surface of the Jog dial is pressed.

85 VINYL mode display.
Lights up in the VINYL mode.